WM-FX463/FX465

SERVICE MANUAL

Ver 1.1 1999. 12
With SUPPLEMENT-2
(9-923-190-82)

US Model
Canadian Model
AEP Model
E Model

Photo: FX465

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MT-WMEX342-114

SPECIFICATIONS

- **Frequency range**
  FM: 87.5 – 108 MHz (0.1 MHz step)
  (US, Canadian model)
  87.5 – 108 MHz (0.05 MHz step)
  (EXCEPT US, Canadian, East European model)
  65 – 74 MHz 87.5 – 108 MHz (0.05 MHz step)
  (East European model)
  AM: 530 – 1,710 kHz (10 kHz step)
  (US, Canadian model)
  531 – 1,602 kHz (9 kHz step)
  (EXCEPT US, Canadian model)
  TV: 2 – 13 channel
  (US model)
- **Power requirements**
  3V DC batteries AA (R6) × 2/External DC 3V power sources
- **Dimensions**
  112.5 × 86.6 × 33.1 mm ($4^1/_2 \times 3^1/_2 \times 1^5/_{16}$ inches) (w/h/d) incl. projecting parts and controls
- **Mass**
  Approx. 150 g (5.3 oz)
  Approx. 265 g (9.4 oz) incl. batteries, cassete, headphones and belt clip.
- **Supplied accessories**
  Stereo headphones or earphones (1)/Belt clip (1)

Design and specifications are subject to change without notice.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

Battery life (approximate hours)

	Sony alkaline LR6 (SG)	Sony R6P (SR)
Playback	22	7
radio	38	14

To use external power

- For house current: Connect AC-E30HG AC power adaptor (not supplied) to the DC IN 3 V jack.

- For 12 V/24 V car battery: Connect the recommended DCC-E130L or DCC-E230 car battery cord to the DC IN 3 V jack.

RADIO CASSETTE PLAYER

MICROFILM

SONY®

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SERVICING NOTES

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering

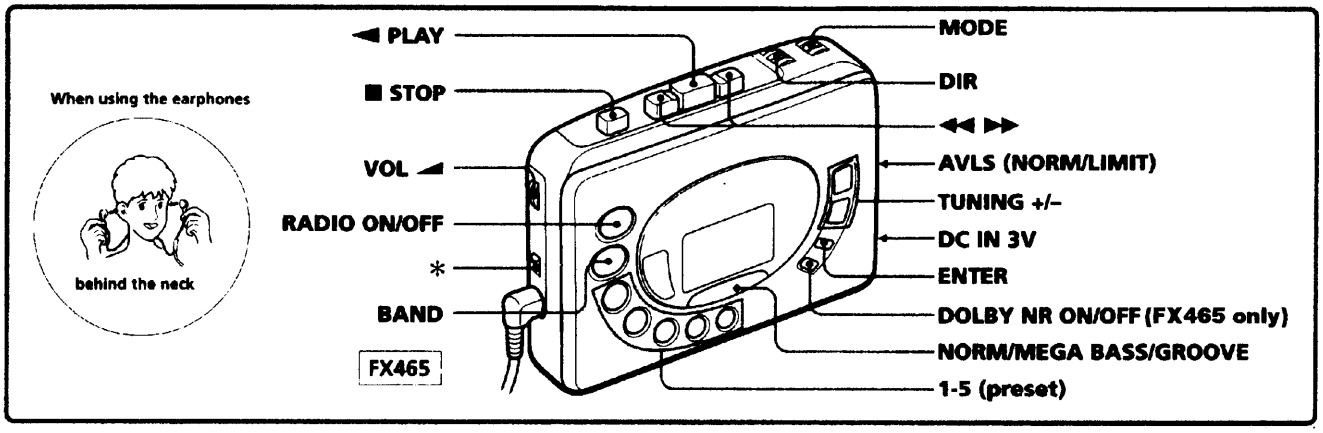
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

This section is extracted from instruction manual.

SECTION 1
GENERAL

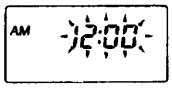
Location of parts and controls



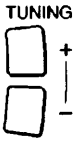
*** NORM CrO_2/METAL•FM ST MONO (EXCEPT US, Canadian model)**
NORM CrO_2/METAL•DX LOCAL (US, Canadian model)

Setting the clock

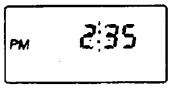
1 Press ENTER.
The hour and minute digits flash.



2 Press TUNING + or –, set the time within 10 seconds of flashing.



3 Press ENTER.
The clock starts

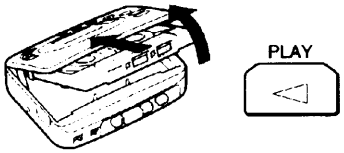


Tip
The clock is on a 12-hour system.

Playing a tape

1 Set NORM•CrO2/METAL to match the tape type.

2 Insert a cassette and press ◄ PLAY.



To	Press
Stop playback	■
Fast-forward or rewind the tape	►► or ◄◄ (For the side facing forward)

To limit the maximum volume automatically
Set AVLS (Automatic Volume Limiter System) to LIMIT. The maximum volume is kept down to protect your ears, even if you turn the volume up. To cancel the AVLS function, set AVLS to NORM.

Tips
- To switch the playback side, set DIR to ◄ or ►.
- To select the direction of the tape, set MODE to ⇄ to play both sides of the tape once, or ⇆ to play both sides repeatedly.
- To emphasize deep bass sound, press NORM/MEGA BASS/GROOVE to select the desired mode. With each press, the indication in the display change as follows:
  MB (MEGA BASS): emphasizes deep bass sound
  GROOVE: emphasizes deeper bass sound
  NORM: off (normal)
- FX465 only: To listen to a tape recorded with the Dolby* NR system, press DOLBY NR and "DD" will appear during tape operations. To cancel the DOLBY NR function, press DOLBY to display DD.

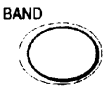
* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
" DOLBY " and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

Notes
- When you set AVLS to LIMIT:
  - the MEGA BASS effect is reduced.
  - turn down the volume if the bass-boosted sound becomes distorted or unstable.
- Do not open the cassette holder while the tape is running.

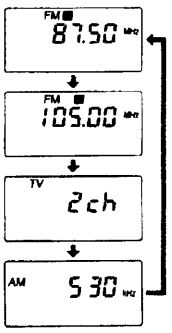
Listening to the radio

1 Press RADIO ON/OFF.

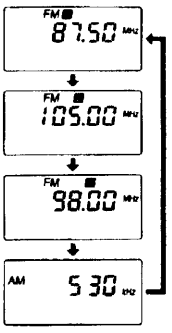
2 U.S.A. model: Press BAND to select the band (FM1, FM2, TV or AM).
Canada model: Press BAND to select the band (FM1, FM2, FM3 or AM).
Each time you press the button, the display changes.



U.S.A. model



EXCEPT U.S.A. model



3 Press TUNING +/– to tune the station you want.

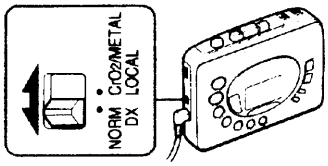
To turn off the radio
Press RADIO ON/OFF.

To tune the station quickly
Hold down TUNING +/– in step 3. The frequency digits change quickly. When you release the button scanning begins and automatically stops when it receives a station.

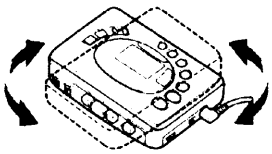
Note
If the reception is poor, the scanning may not stop properly at the station.

To improve broadcast reception
For FM, extend the headphones cord or adjust the DX/LOCAL.
For AM, reorient the unit itself.

FM



AM



Tip
While listening to the radio, you can switch to the tape by pressing ◄ PLAY, ◄◄ or ►►.

Note
If the broadcast becomes noisy when a cassette with a metallic shell or label is inserted, remove the cassette.

To listen to the radio abroad
The frequency range differs depending on the area. If you listen to the radio in an area of different frequency range, change the area indication in the display.
1 Turn on the radio and press ENTER for about 3 seconds to flash the display.
2 Press BAND for about 3 seconds while the display is flashing and then the "U" area indication flashes. While the "U" area indication is flashing, press BAND to change the area indication. Each press of the BAND changes the area indication (eg. "E"→"U"→"E"...) ("U": U.S.A. Canada, "E": Europe and other countries).
3 Choose either the "U" or "E" area indication and then press ENTER to set the area indication.

Notes
- If you change the frerquency range, all the preset stations will be canceled.
- For "E" area indication, the clock is on a 24-hour system.

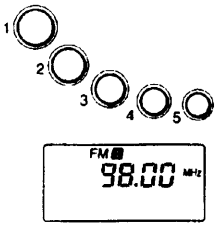
To preset radio stations

You can store radio stations into the unit's memory.
You can preset up to 20 radio stations, 5 for each FM1, FM2, TV or AM band (U.S.A. model).
You can preset up to 20 radio stations, 5 for each FM1, FM2, FM3 or AM band (Canada model).

1 Press RADIO ON/OFF.

2 Tune in the desired station by using the BAND and TUNING + or –.

3 Press and hold 1-5 buttons for more than 2 seconds.
The display flashes twice with a beep sound, the station is preset.
If a station is already stored, the new station replaces the old one.



To play the preset radio stations
Press BAND to select the band, and then press 1-5 buttons to tune in a stored station.

SECTION 2
DISASSEMBLY

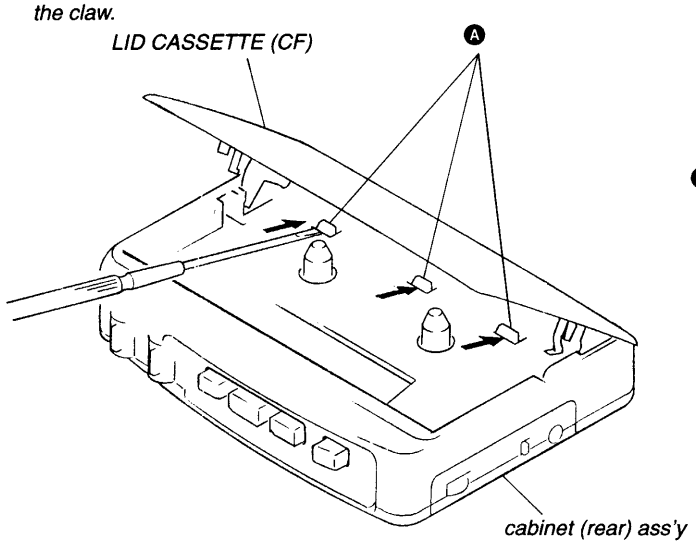
• This set can be disassembled in the order shown below.

CABINET (REAR) ASS'Y
NOTE FOR INSTALLATION
(Page 4)
→ MAIN BOARD, MECHANISM DECK (MT-WMEX342-114) (Page 5) → BELT, MOTOR (M901), MAGNETIC HEAD (HP901) (Page 5)
→ CASSETTE HOLDER (CF) ASS'Y
NOTE FOR INSTALLATION
(Page 6) → DISPLAY BOARD (Page 7)

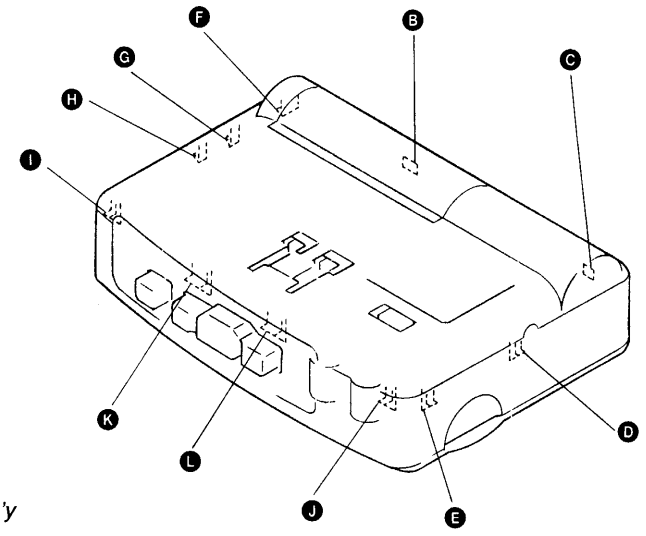
Note: Follow the disassembly procedure in the numerical order given.

CABINET (REAR) ASS'Y

❶ *Insert the precision screw driver (1.4 mm flat-blade) in to the slit at claw Ⓐ and release the claw.*



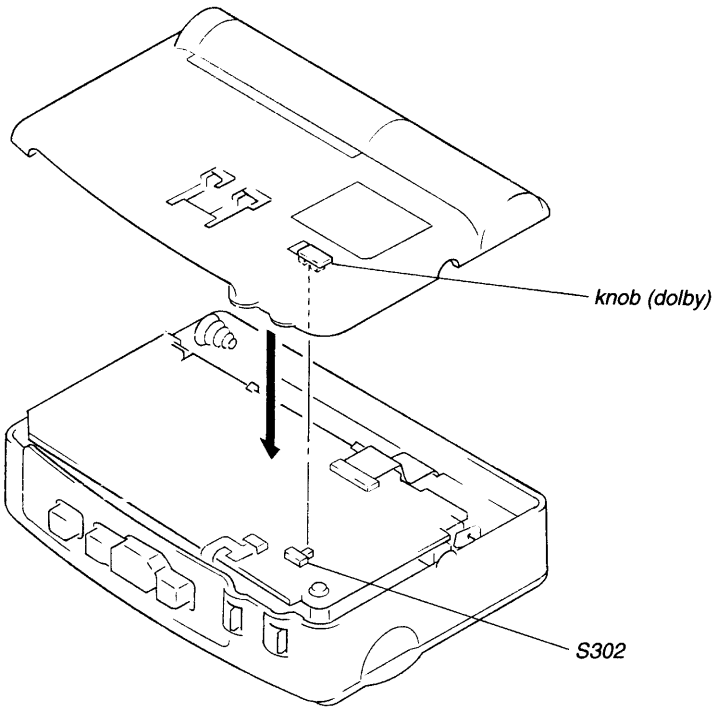
❷ *Remove the cabinet (rear) ass'y. (Release all claw Ⓑ to Ⓛ in alphabetical order.)*



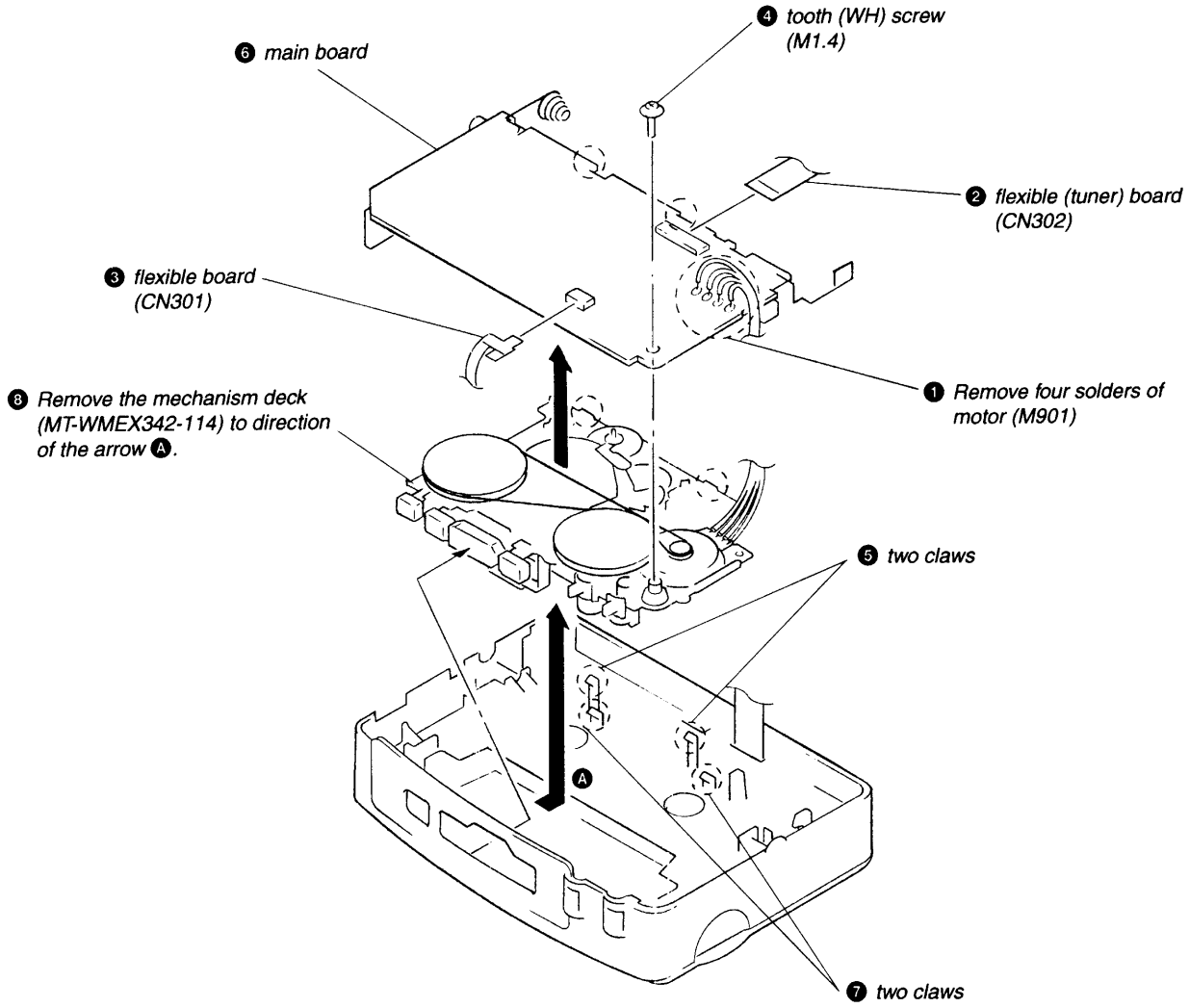
NOTE FOR INSTALLATION

• **CABINET (REAR) ASS'Y**

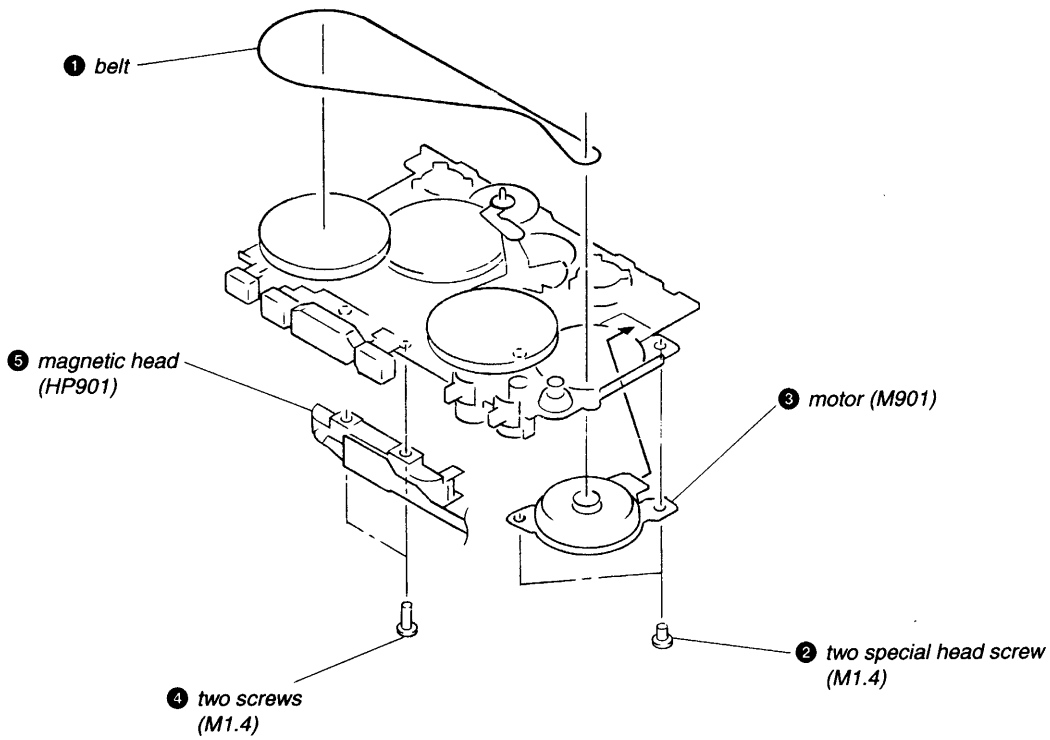
On installation cabinet (rear) ass'y adjust the knob (dolby) and S302



MAIN BOARD, MECHANISM DECK (MT-WMEX342-114)

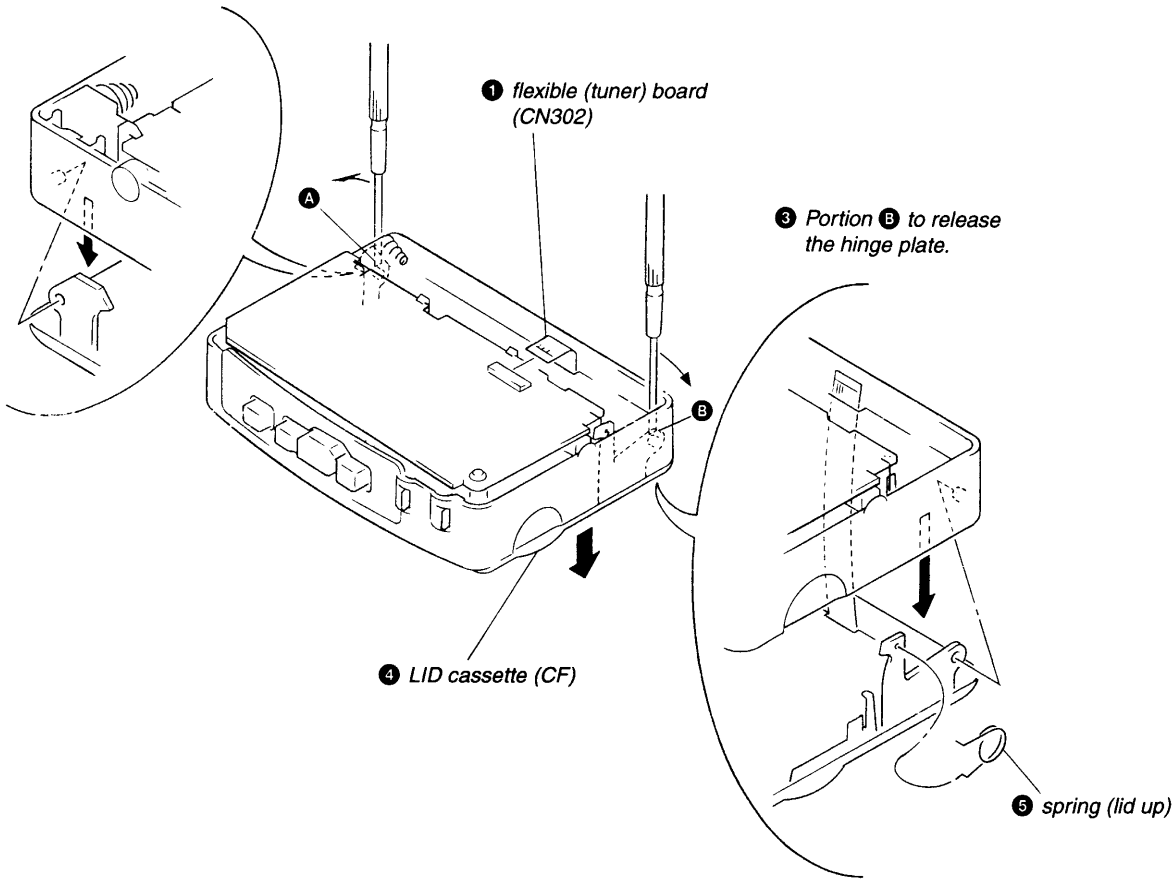

❹ tooth (WH) screw (M1.4)
❻ main board
❷ flexible (tuner) board (CN302)
❸ flexible board (CN301)
❶ Remove four solders of motor (M901)
❽ Remove the mechanism deck (MT-WMEX342-114) to direction of the arrow Ⓐ.
❺ two claws
Ⓐ
❼ two claws

BELT, MOTOR (M901), MAGNETIC HEAD (HP901)



CASSETTE HOLDER (CF) ASS'Y

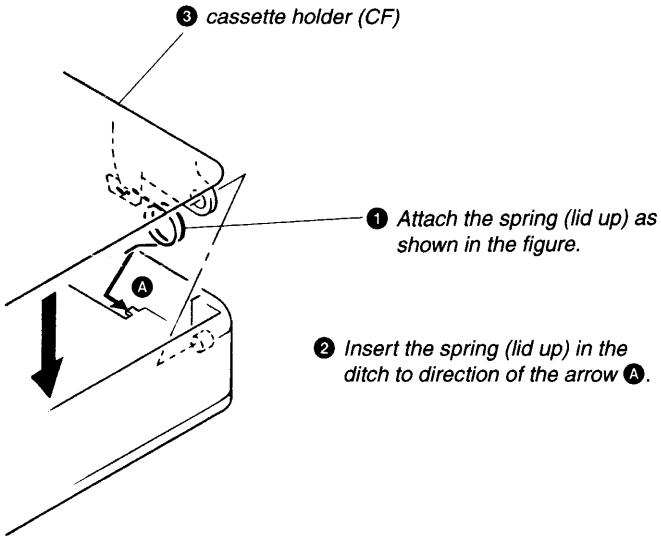
❷ *Insert a precision screw driver (1.4 mm flat-blade) vertically in to portion* Ⓐ *to release the hinge plate.*



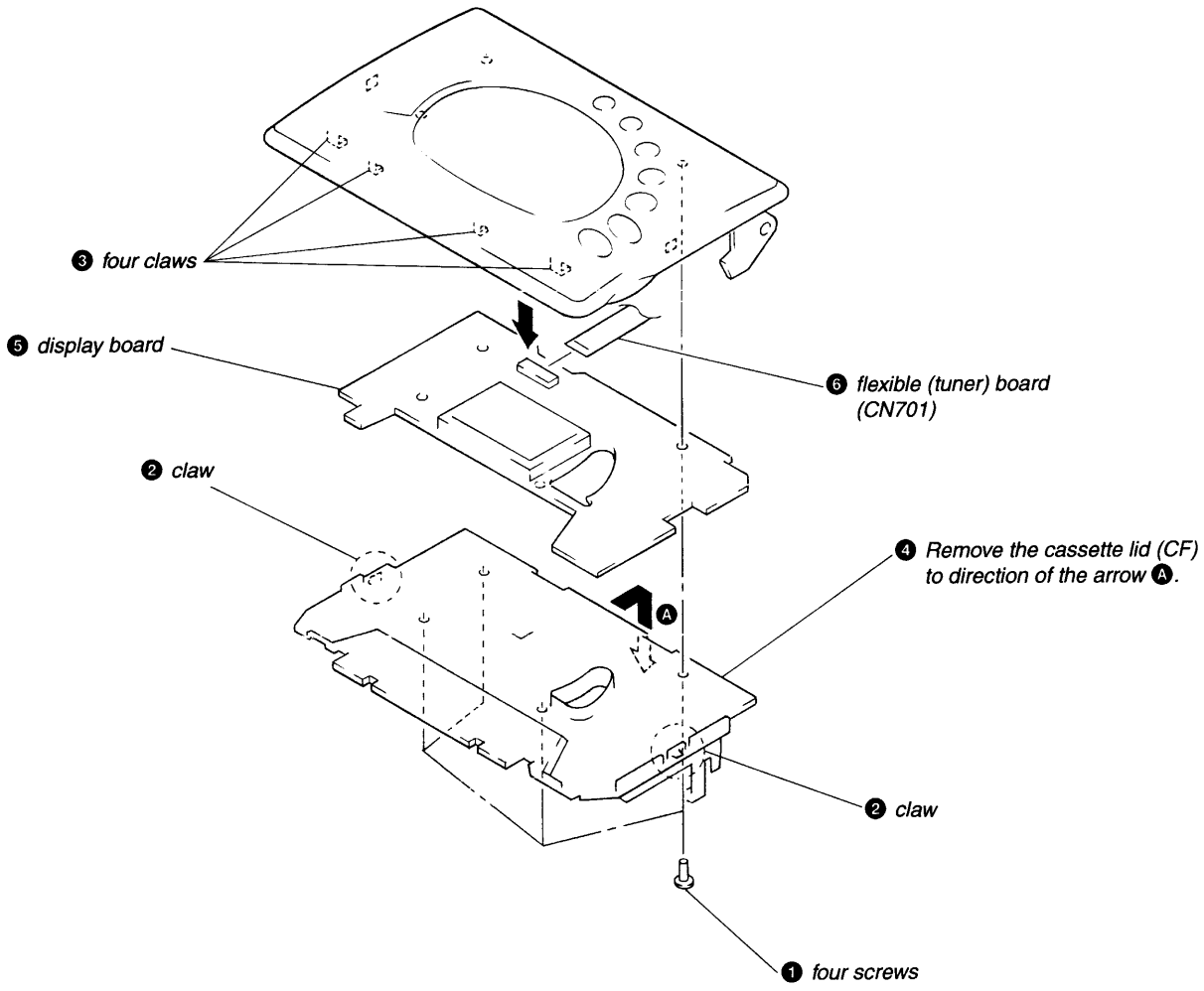
NOTE FOR INSTALLATION

Note: Follow the assembly procedure in the numerical order given.

- **SPRING (LID UP)**


❸ cassette holder (CF)
❶ Attach the spring (lid up) as shown in the figure.
Ⓐ
❷ Insert the spring (lid up) in the ditch to direction of the arrow Ⓐ.

DISPLAY BOARD



SECTION 3
MECHANICAL ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured-alcoholmoistened swab:
   playback head pinch roller
   capstan rubber belts
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage (2.5 V) unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	20 – 42 g•cm (0.28 – 0.58 oz•inch)
FWD Back Tension		less than 2 g•cm (less than 0.03 oz•inch)
REV	CQ-102RC	20 – 42 g•cm (0.28 – 0.58 oz•inch)
REV Back Tension		less than 2 g•cm (less than 0.03 oz•inch)
FF, REW	CQ-201B	more than 50 g•cm (more than 0.69 oz•inch)

Tape Pulling Force Measurement

Mode	Torque meter	Meter reading
FWD	CQ-403A	more than 30g (more than 0.41 oz)
REV	CQ-403R	

SECTION 4
ELECTRICAL ADJUSTMENTS

Precaution

- Supplied voltage: 2.5 V
- Switch and control position
  NORM CrO_2/METAL·FM ST MONO switch: NORM·FM ST (EXCEPT US, Canadian model)
  NORM CrO_2/METAL·DX LOCAL switch: NORM·DX (US, Canadian model)
  VOLUME CONTROL: maximum
  AVLS switch: OFF
  NORM/MEGA BASS/GROOVE switch: NORM

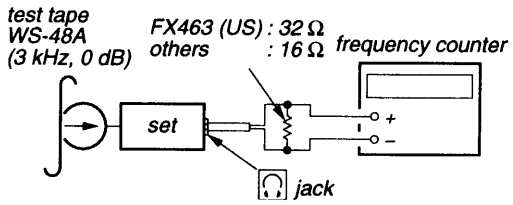
Test tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

TAPE SECTION

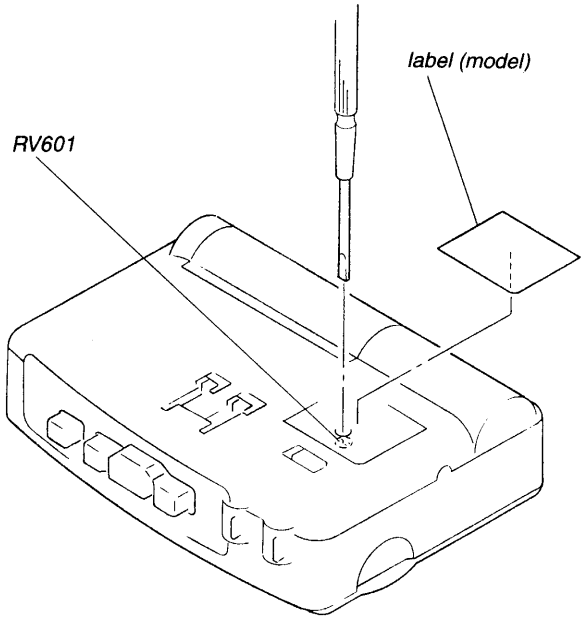
Tape Speed Adjustment

Procedure:



1. Playback WS-48A (tape center part) in the REV mode and adjust RV601 so that the frequency counter reading becomes 2985 Hz.
2. Playback WS-48A (tape center) in the FWD mode and check that the frequency counter reading becomes 2985 ± 15 Hz.

Adjustment Location:

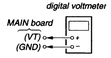


TUNER SECTION

FM SECTION

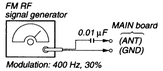
Setting:
RADIO ON/OFF switch: ON
BAND switch: FM

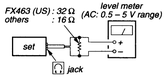
FM Tuning Voltage Adjustment



FM TUNING VOLTAGE ADJUSTMENT
Adjust for a 10.00 ± 0.03 Vdc reading on digital voltmeter
L6
108 MHz

FM Tracking Adjustment



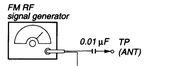


* Repeat the procedures in each adjustment several times, and the tracking adjustment should be finally done by the trimmer capacitors.

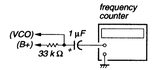
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L5	CT1
87.5 (59.75) ((65.0)) MHz	108 MHz

( ) : US model
(( )) : East European model

VCO ADJUSTMENT



Carrier frequency : 65 MHz (East European), 87.5 MHz (others)
Modulation : no modulation
Output level : 65 dBµV

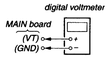


1. Connect the frequency counter to ⑭ (VCO) and ⑦ (B+) pins of IC1 as shown the figure below.
2. Turn the set to 65 MHz (East European) 87.5 MHz (others).
3. Adjust RV1 for 76 kHz 0.05 kHz reading on frequency counter.

TV SECTION (US model only)

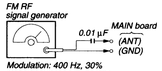
Setting:
RADIO ON/OFF switch: ON
BAND switch: TV

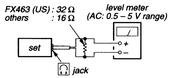
TV Tuning Voltage Adjustment



TV TUNING VOLTAGE ADJUSTMENT
Adjust for a 1.80 ± 0.03 Vdc reading on digital voltmeter
L67
179.75 kHz (7ch)

TV Tracking Adjustment





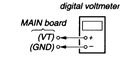
* Repeat the procedures in each adjustment several times, and the tracking adjustment should be finally done by the trimmer capacitors.

TV TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L66	CT61
179.75 MHz (7ch)	215.75 MHz (13ch)

AM SECTION

Setting:
RADIO ON/OFF switch: ON
BAND switch: AM

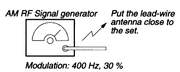
AM Tuning Voltage Adjustment

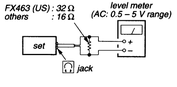


AM TUNING VOLTAGE ADJUSTMENT
Adjust for a 1.50 ± 0.03 Vdc reading on digital voltmeter
L8
530 (531) kHz

( ): Except US, Canadian model

AM IF Adjustment, AM Tracking Adjustment





* Repeat the procedures in each adjustment several times, and the tracking adjustment should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT
Adjust for a maximum reading on level meter
T1
1000 (999) kHz

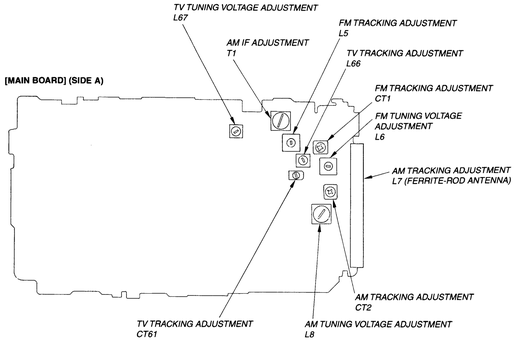
( ): Except US, Canadian model

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L7	CT2
620 (621) kHz	1400 (1395) kHz

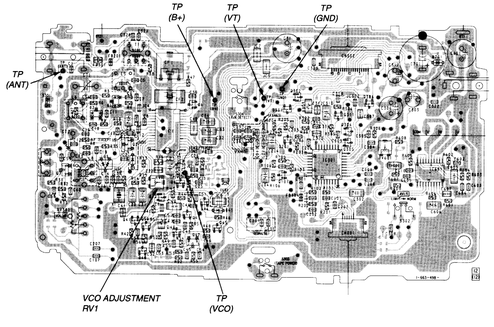
( ): Except US, Canadian model

• Adjustment Location

[MAIN BOARD] (SIDE A)



[MAIN BOARD] (SIDE B)



SECTION 5
DIAGRAMS

5-1. IC PIN FUNCTION DESCRIPTION

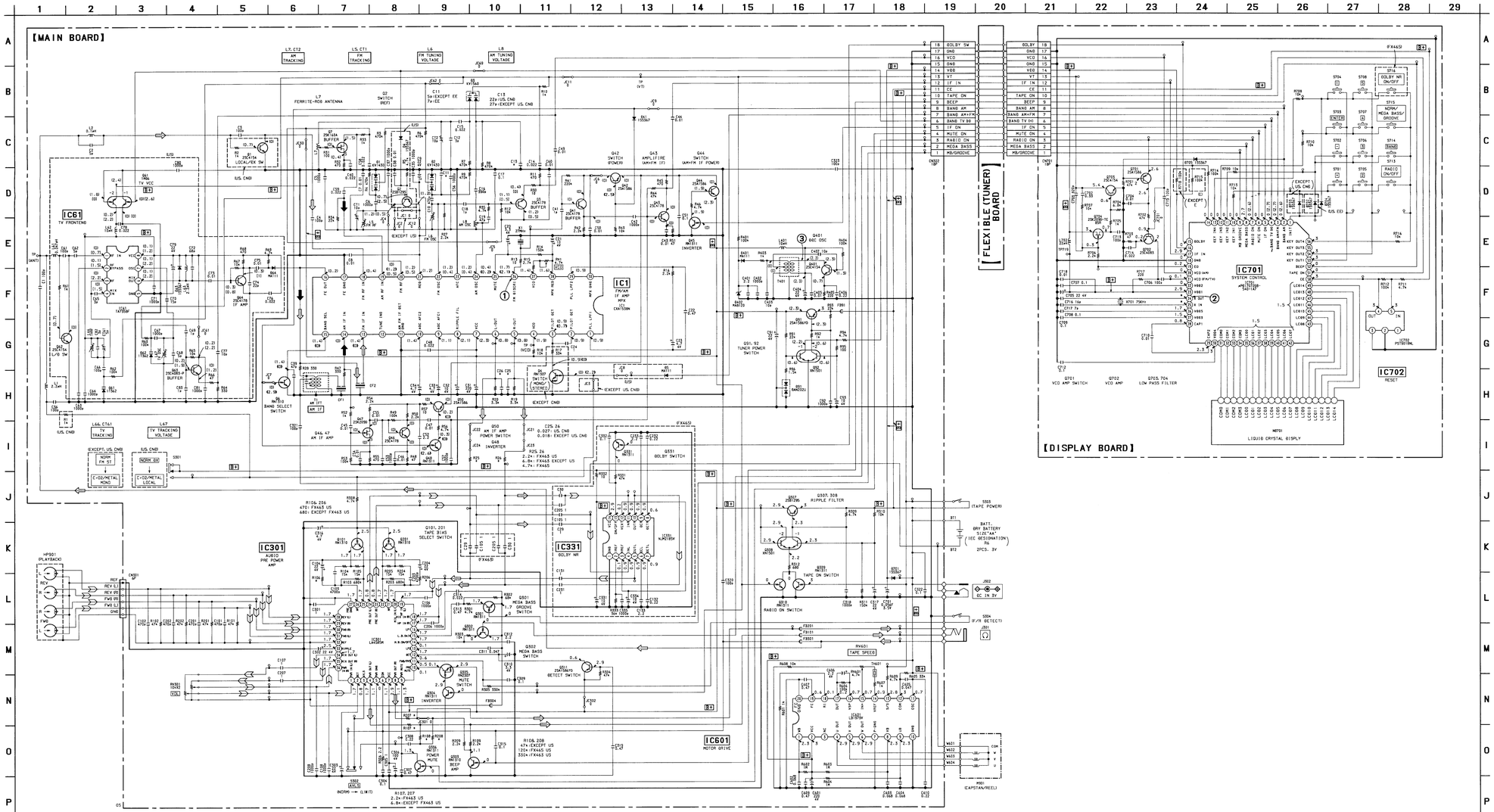
• DISPLAY BOARD IC701 µPD17072 GB-540-1A7 (SYSTEM CONTROL, LCD DRIVE)

Pin No.	Pin Name	I/O	Function
1	INIT	O	Initialize signal output
2	BAND AM	O	Radio AM band ON/OFF signal output "H": Radio AM ON
3	BAND AM + FM	O	Radio mono/stereo signal output "H": Stereo
4	BAND TV (H)	O	TV (H) ON/OFF signal output "H": TV ON
5	IF ON	O	Radio FM and AM IF ON/OFF signal output "H": IF ON
6	MUTE ON	O	Mute signal output "H": MUTE ON
7	RADIO ON	O	Radio power ON/OFF signal output "H": Radio ON
8	MAGA BASS	O	MAGA BASS ON/OFF signal output "L": MAGA BASS ON
9	MB GROOVE	O	MB GROOVE ON/OFF signal output
10-13	KEY IN1-KEY IN4	I	Key return signal input
14	———	I	Connected to "L" level
15	DOLBY	O	DOLBY ON/OFF signal output "H": DOLBY ON
16	———	I	Connected to "L" level (E model), Connected to "H" level (EXCEPT E model)
17	IF IN	I	FM/AM IF signal input
18	GND	–	Ground
19	EO	O	PLL error output
20	VCO (AM)	I	AM VCO input
21	VCO (FM/TV)	I	FM/TV VCO input
22	VDD2	–	Connected to the regulator circuit capacitor
23	VDD1	–	Power Supply 1.8 – 3.6 V
24	X OUT	O	Connected to the 75 kHz crystal oscillator
25	X IN	I	
26	VDD5	–	Connected to the regulator circuit capacitor
27	VDD3	–	Connected to the power voltage capacitor for liquid crystal display drive
28	CAP1	–	
29	CAP2	–	
30	VDD4	–	
31-34	COM0-COM3	O	Liquid crystal display common signal output
35-49	LCD1-LCD14	O	Liquid crystal segment signal output
50	CE	I	Reset signal input
51	TAPE ON	I	Tape ON signal input
52	BEEP	O	Beep signal output
53-56	KEY OUT1-KEY OUT4	O	Key source signal output

	Pin ⑧	Pin ⑨
GROOVE	L	H
MB	H	L

5-2. SCHEMATIC DIAGRAM

• See page 20, 21 for IC Block Diagrams.



• Waveforms

❶ IC1 ㉔ (FM DISCRI)
50 mV/DIV, 50 ns/DIV
0.3 Vp-p
27 MHz

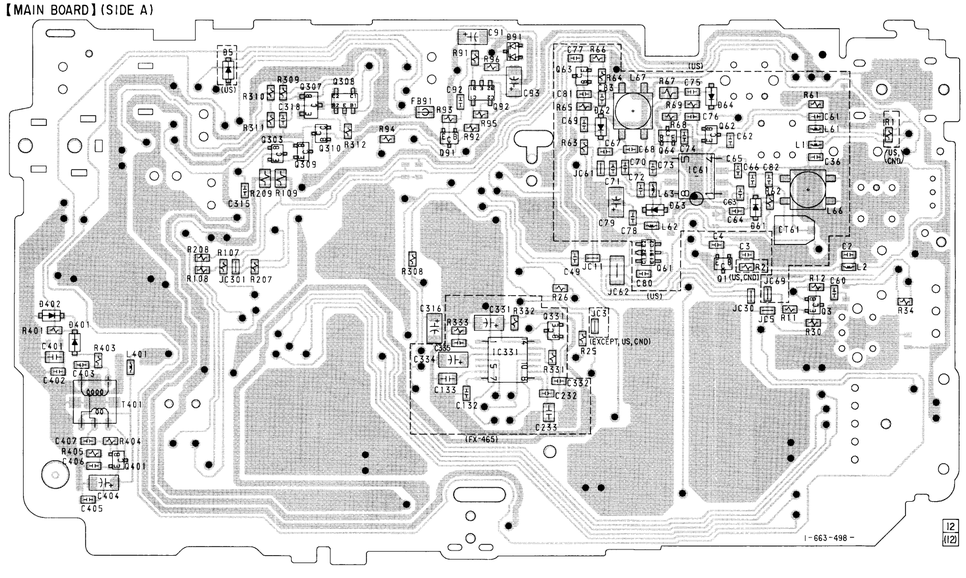
❷ IC701 ㉚ (X IN)
500 mV/DIV, 50 µs/DIV
1.9 Vp-p
75 kHz

❸ T401
1 V/DIV, 100 ns/DIV
3.2 V
3 kHz

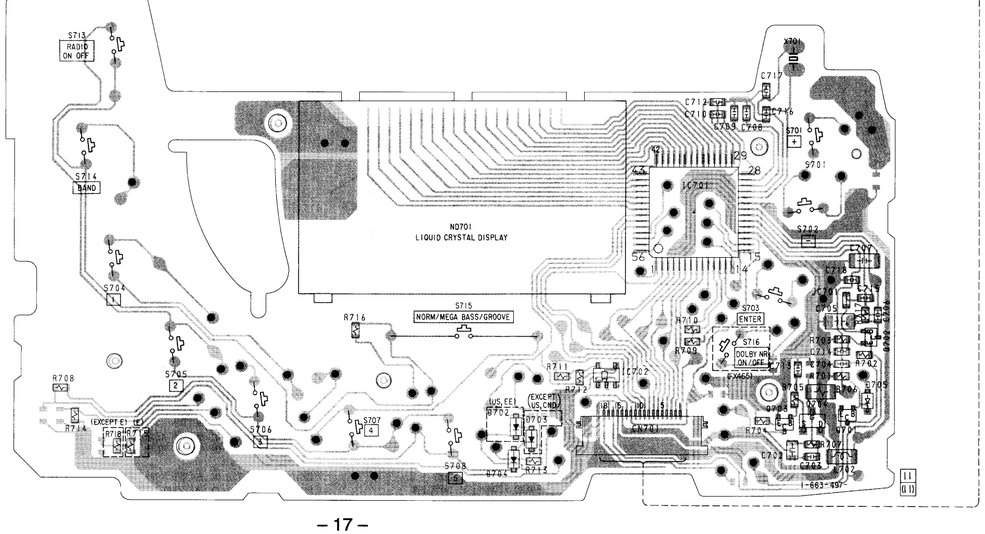
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 3 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : PB (TAPE)
  ( ) : FM
  << >> : AM
  [ ] : TV
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇦ : PLAY BACK
- Abbreviation
  CND : Canadian
  EE : East European

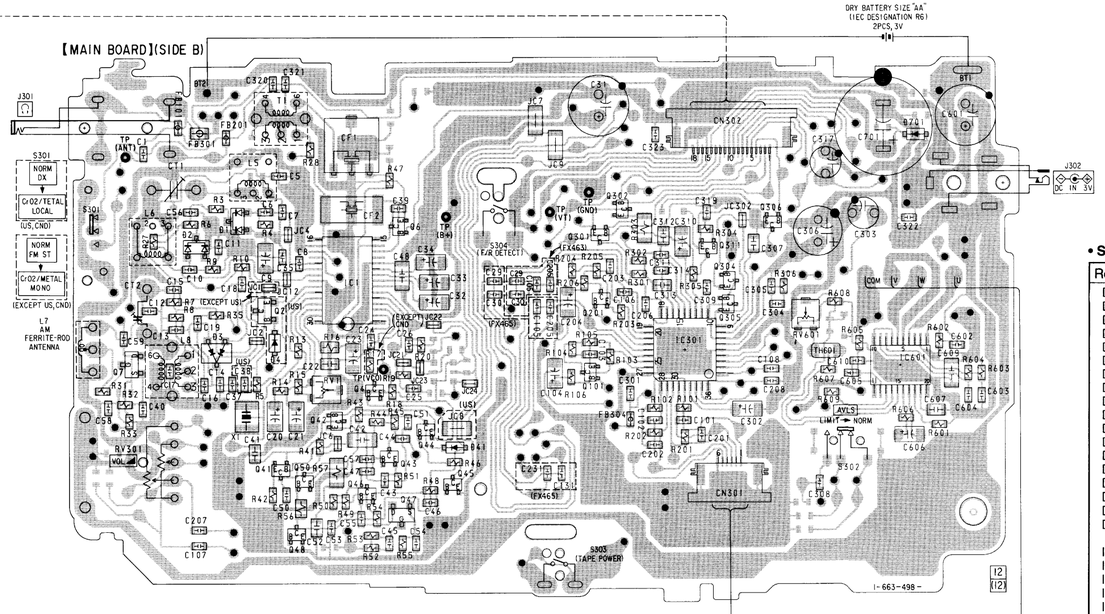
【MAIN BOARD】(SIDE A)



【DISPLAY BOARD】

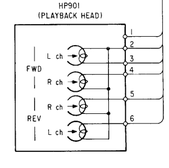


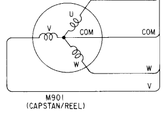
【MAIN BOARD】(SIDE B)



→【FLEXIBLE(TUNER) BOARD】

I-663-291- 11





• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	C-12	Q42	D-13
D2	C-11	Q43	E-13
D3	D-11	Q44	D-13
D4	D-12	Q45	E-14
D5	B-3	Q46	E-13
D41	E-14	Q47	E-13
D61	C-7	Q48	E-12
D62	B-6	Q50	E-12
D63	C-6	Q61	C-6
D64	B-7	Q62	B-7
D91	A-5	Q63	B-6
D401	D-1	Q64	B-7
D402	D-1	Q91	B-5
D701	B-18	Q92	B-5
D702	J-5	Q101	D-15
D703	J-5	Q201	C-15
D704	J-5	Q301	C-15
D705	J-8	Q302	B-15
		Q303	B-3
IC1	C-13	Q304	C-16
IC61	C-7	Q305	C-16
IC301	D-16	Q306	C-16
IC331	D-5	Q307	B-3
IC601	D-18	Q308	B-4
IC701	H-7	Q309	B-3
IC702	J-6	Q310	B-3
		Q311	C-16
Q1	C-7	Q331	D-6
Q2	C-12	Q401	E-2
Q3	D-8	Q701	J-8
Q4	D-13	Q702	I-8
Q6	C-13	Q703	J-8
Q7	D-11	Q704	J-8
Q41	E-12		

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ● : Through hole.
- △ : internal component.
- : Pattern of the rear side.
- : Pattern from the side which enables seeing.

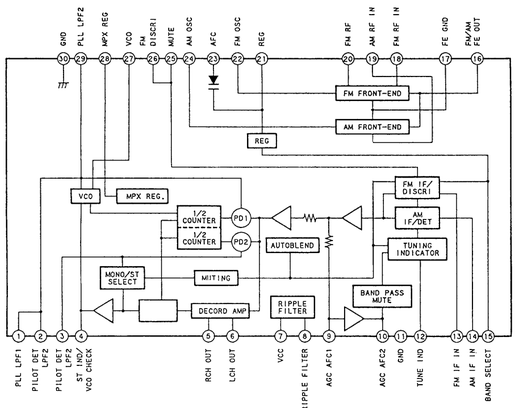
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

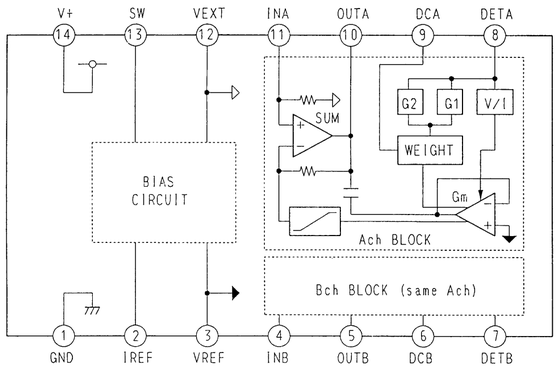
- Abbreviation
  CND : Canadian
  EE : East European

• IC Block Diagrams

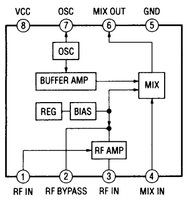
IC1 CX1538N



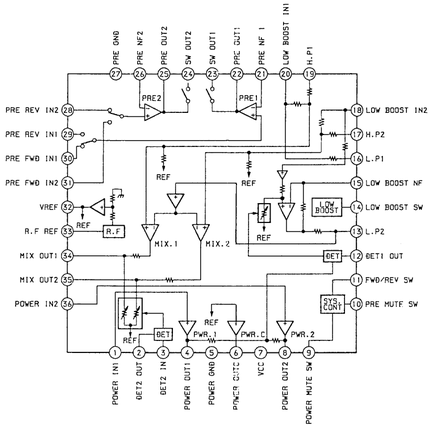
IC331 NJM2185V



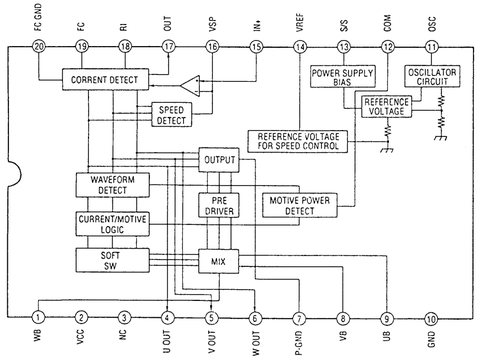
IC61 TA7358F



IC301 LA4585M



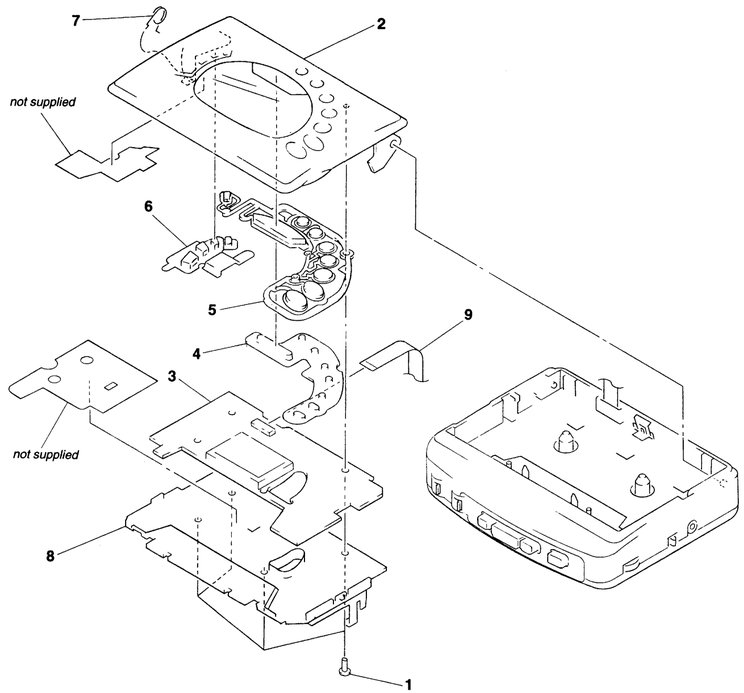
IC601 LB1979V-TLM



SECTION 6
EXPLODED VIEWS

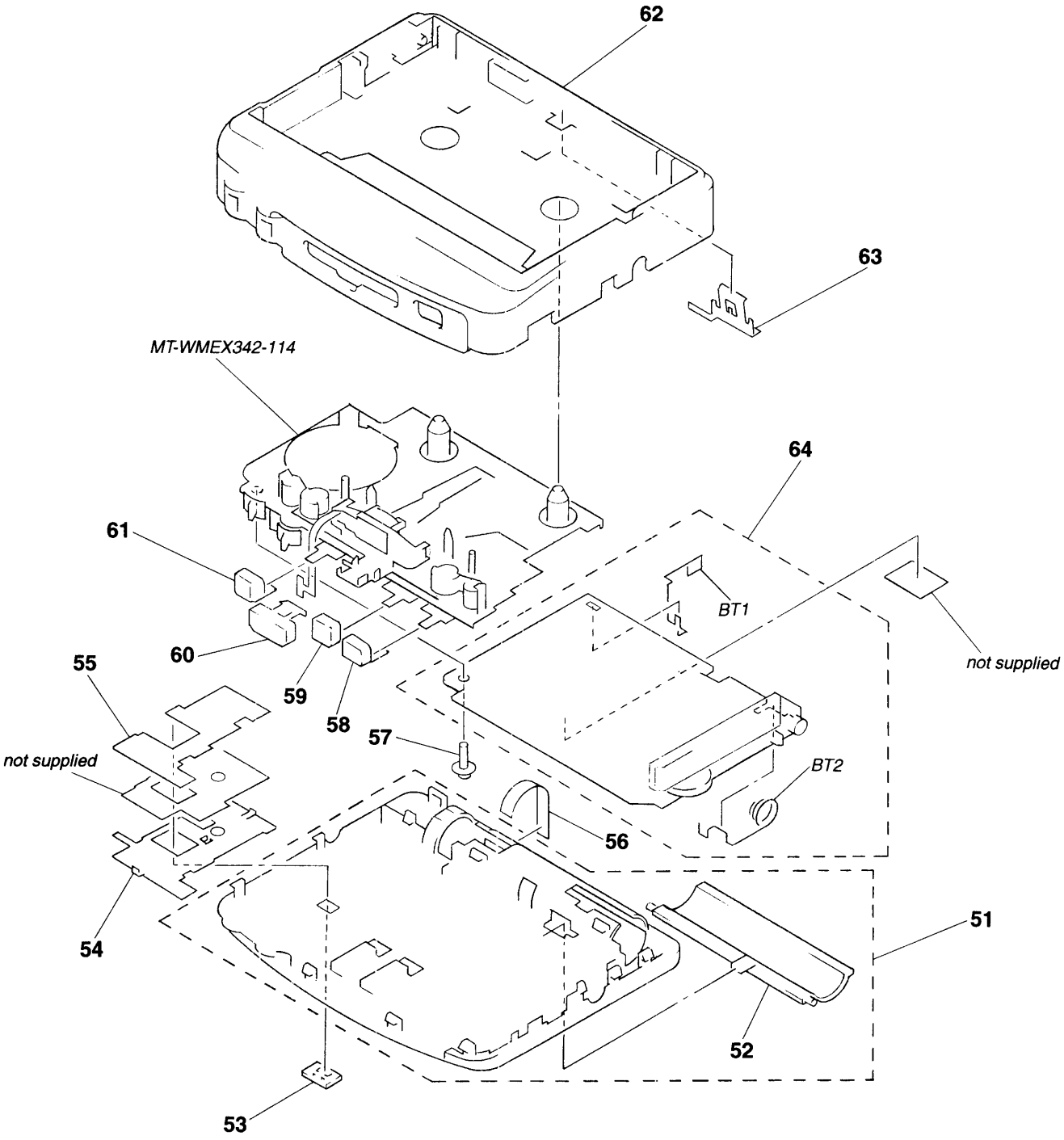
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  CND : Canadian
  IT : Italian
  EE : East European
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

(1) CHASSTTE HOLER (CF) SECTION



Ref. No.	Part No.	Description	Remark
1	3-375-114-31	SCREW	
2	3-007-112-01	LID (CF), CASSETTE (FX465)	
2	3-007-112-11	LID (CF), CASSETTE (FX463)	
3	A-3016-930-A	DISPLAY BOARD, COMPLETE (US)	
3	A-3016-931-A	DISPLAY BOARD, COMPLETE (CND)	
3	A-3016-932-A	DISPLAY BOARD, COMPLETE (EE)	
3	A-3016-938-A	DISPLAY BOARD, COMPLETE (AEP, IT)	
3	A-3016-939-A	DISPLAY BOARD, COMPLETE (E)	
4	3-007-113-01	BUTTON (PRESET)	
5	3-007-114-01	BUTTON (TOP)	
6	3-007-115-01	BUTTON (ENTER)	
7	3-921-954-01	SPRING (LID UP)	
8	3-007-118-01	HOLDER (CF), CASSETTE	
9	1-663-291-11	FLEXIBLE (TUNER) BOARD	

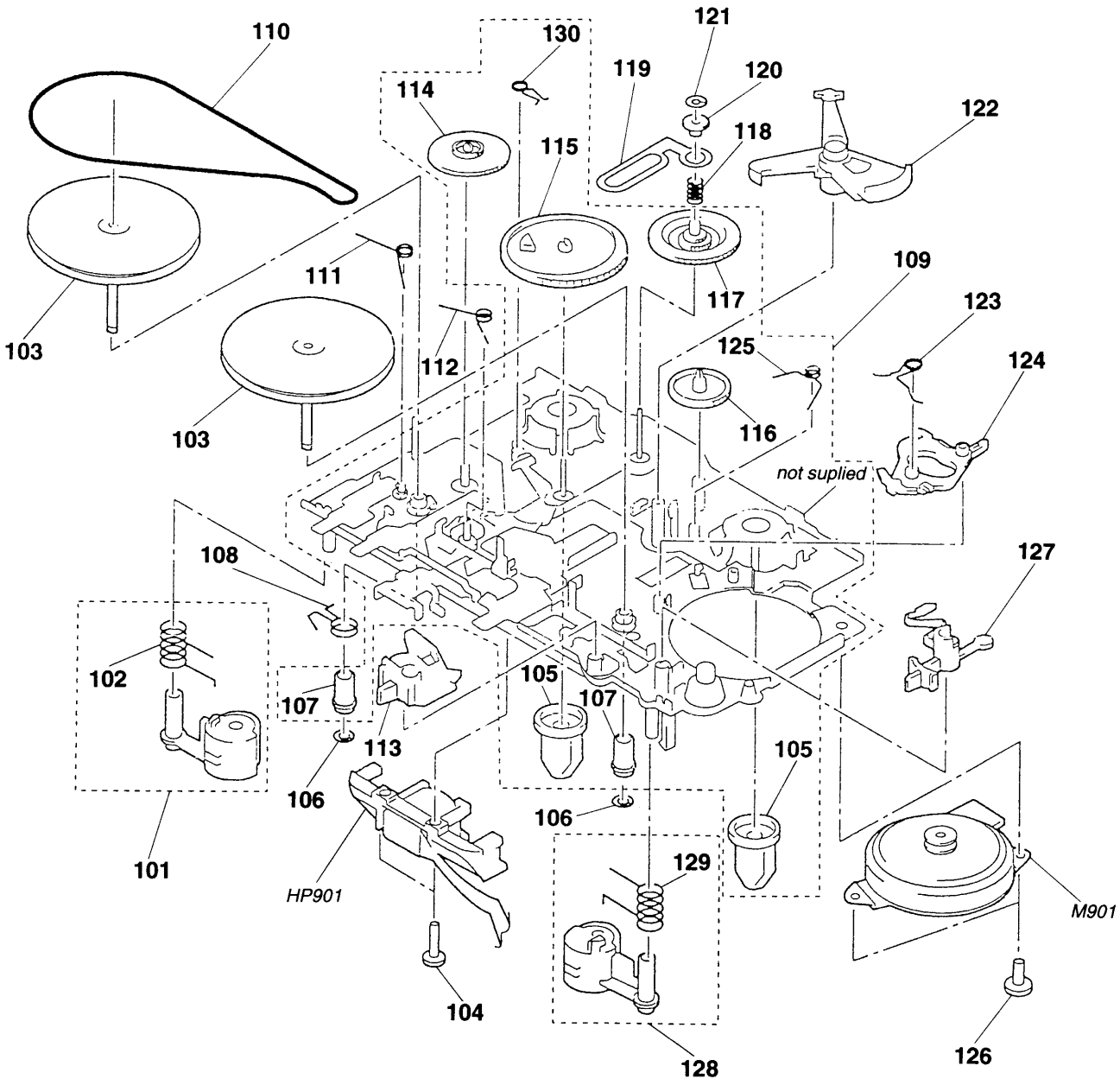
(2) CABINET SECTION



Ref. No.	Part No.	Description	Remark
51	X-3373-380-1	CABINET (REAR) SUB ASSY	
52	3-921-963-21	LID, BATTERY CASE	
53	3-921-950-11	KNOB (DOLBY)	
54	3-921-953-11	PLATE, SHIELD	
* 55	3-922-837-11	SHEET, INSULATING	
* 56	3-011-182-01	RIBBON	
57	3-921-955-01	SCREW (M1.4), TOOTH (WH)	
58	3-007-104-01	BUTTON (STOP) (■)	
59	3-007-105-01	BUTTON (FF) (◀◀)	
60	3-007-106-01	BUTTON (PLAY) (◀)	
61	3-007-107-01	BUTTON (REW) (▶▶)	
62	3-008-978-01	CABINET (FRONT) (CF) (US, CND)	

Ref. No.	Part No.	Description	Remark
62	3-008-978-11	CABINET (FRONT) (CF) (EXCEPT US, CND)	
63	3-364-675-01	SPRING (CASSETTE)	
64	A-3016-933-A	MAIN BOARD, COMPLETE (FX463: US)	
64	A-3016-934-A	MAIN BOARD, COMPLETE (FX463: CND)	
64	A-3016-935-A	MAIN BOARD, COMPLETE (FX463: EE)	
64	A-3016-936-A	MAIN BOARD, COMPLETE (FX465: US)	
64	A-3016-937-A	MAIN BOARD, COMPLETE (FX465: CND)	
64	A-3016-940-A	MAIN BOARD, COMPLETE (FX463: AEP, IT, E)	
64	A-3016-941-A	MAIN BOARD, COMPLETE (FX465: EE)	
64	A-3016-942-A	MAIN BOARD, COMPLETE (FX465: AEP, IT, E)	
BT1	3-921-956-01	TERMINAL (+), BATTERY	
BT2	3-921-957-01	TERMINAL (-), BATTERY	

(3) MECHANISM DECK SECTION (MT-WMEX342-114)



Ref. No.	Part No.	Description	Remark
101	X-3369-749-1	PINCH LEVER (N) ASSY	
102	3-920-996-01	SPRING (PINCH N)	
103	X-3369-747-1	WHEEL ASSY, CAPSTAN	
104	3-704-197-71	SCREW (M1.4)	
105	3-921-042-01	GEAR (REEL)	
106	3-921-797-01	WASHER	
107	3-921-003-01	BEARING	
108	3-920-993-01	SPRING (NR)	
109	X-3371-589-1	CHASSIS (COPM) ASSY	
110	3-938-657-11	BELT	
111	3-920-992-01	SPRING (STOP)	
112	3-013-142-01	SPRING (FR-CP)	
113	3-921-053-06	LEVER, D SELECTION	
114	3-921-043-01	GEAR (D)	
115	X-3369-752-1	CLUTCH ASSY	
116	3-920-999-01	GEAR (A)	

Ref. No.	Part No.	Description	Remark
117	3-921-050-01	GEAR (B)	
118	3-920-990-01	SPRING (UD), COMPRESSION	
119	3-921-335-01	WASHER, LEVER	
120	3-923-530-01	SLEEVE (M)	
121	3-728-091-01	WASHER, STOPPER	
122	3-921-052-01	LEVER (A), DETECTION	
123	3-920-994-11	SPRING (D SELECTION)	
124	3-921-022-01	LEVER (B), DETECTION	
125	3-938-628-01	SPRING (PLAY-CP)	
126	3-703-816-31	SCREW (M1.4), SPECIAL HEAD	
127	3-921-023-01	LEVER, M SELECTION	
128	X-3369-748-1	PINCH LEVER (R) ASSY	
129	3-920-997-01	SPRING (PINCH R)	
130	3-933-324-01	SPRING (FR LEVER)	
HP901	1-500-404-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-698-839-11	MOTOR (CAPSTAN/REEL)	

SECTION 7
ELECTRICAL PARTS LIST

DISPLAY

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation CND:Canadian IT:Italian EE:East European
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref.No.	Part No.	Description			Remark
	A-3016-930-A	DISPLAY BOARD, COMPLETE (US)			
	A-3016-931-A	DISPLAY BOARD, COMPLETE (CND)			
	A-3016-938-A	DISPLAY BOARD, COMPLETE (AEP, IT)			
	A-3016-939-A	DISPLAY BOARD, COMPLETE (E)			
	A-3016-932-A	DISPLAY BOARD, COMPLETE (EE)			
		**********			
*	3-007-117-01	CASE (LCD)			
*	3-012-051-01	PLATE (LCD), CONDUCTIVE			
		< CAPACITOR >			
C702	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C703	1-164-473-11	CERAMIC CHIP	820PF	10%	50V
C704	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C705	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C706	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C707	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C708	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C709	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C710	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C712	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C713	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C714	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C715	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C716	1-102-952-00	CERAMIC CHIP	16PF	0.5PF	50V
C717	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C718	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN701	1-573-927-11	CONNECTOR, FPC (ZIF) 18P			
		< DIODE >			
D702	8-719-049-09	DIODE	1SS367-T3SONY (US, EE)		
D703	8-719-049-09	DIODE	1SS367-T3SONY (EXCEPT US, CND)		
D704	8-719-049-09	DIODE	1SS367-T3SONY		
D705	8-719-049-09	DIODE	1SS367-T3SONY		
		< IC >			
IC701	8-759-455-07	IC	UPD17072GB-540-1A7		
IC702	8-759-296-60	IC	PST9018NL		
		< JUMPER RESISTOR >			
JC701	1-216-864-11	METAL CHIP	0	5%	1/16W
		< COIL >			
L702	1-410-946-31	INDUCTOR CHIP	22uH		
		< LIQUID CRYSTAL DISPLAY >			
ND701	1-801-538-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q701	8-729-230-60	TRANSISTOR	2SA1586-YG		
Q702	8-729-923-31	TRANSISTOR	2SC4083-P		
Q703	8-729-602-21	TRANSISTOR	2SC4154-F		
Q704	8-729-220-93	TRANSISTOR	2SK209-G		
		< RESISTOR >			
R701	1-216-841-11	METAL CHIP	47K	5%	1/16W
R702	1-216-841-11	METAL CHIP	47K	5%	1/16W
R703	1-216-805-11	METAL CHIP	47	5%	1/16W
R704	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R705	1-216-821-11	METAL CHIP	1K	5%	1/16W
R706	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R707	1-216-833-11	METAL CHIP	10K	5%	1/16W
R708	1-216-833-11	METAL CHIP	10K	5%	1/16W
R709	1-216-833-11	METAL CHIP	10K	5%	1/16W
R710	1-216-833-11	METAL CHIP	10K	5%	1/16W
R711	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R712	1-216-845-11	METAL CHIP	100K	5%	1/16W
R713	1-216-833-11	METAL CHIP	10K	5%	1/16W
R714	1-216-845-11	METAL CHIP	100K	5%	1/16W
R715	1-216-845-11	METAL CHIP	100K	5%	1/16W (E)
R716	1-216-833-11	METAL CHIP	10K	5%	1/16W
R717	1-216-813-11	METAL CHIP	220	5%	1/16W
R718	1-216-845-11	METAL CHIP	100K	5%	1/16W (EXCEPT E)
		< VIBRATOR >			
X701	1-760-666-11	VIBRATOR, CRYSTAL (75kHz)			
		**********			

MAIN

Ref. No.	Part No.	Description			Remark
	A-3016-933-A	MAIN BOARD, COMPLETE (FX463:US)			
	A-3016-934-A	MAIN BOARD, COMPLETE (FX463:CND)			
	A-3016-940-A	MAIN BOARD, COMPLETE (FX463:AEP, IT, E)			
	A-3016-935-A	MAIN BOARD, COMPLETE (FX463:EE)			
	A-3016-936-A	MAIN BOARD, COMPLETE (FX465:US)			
	A-3016-937-A	MAIN BOARD, COMPLETE (FX465:CND)			
	A-3016-942-A	MAIN BOARD, COMPLETE (FX465:AEP, IT, E)			
	A-3016-941-A	MAIN BOARD, COMPLETE (FX465:EE)			
		**********			
		< BATTERY TERMINAL >			
BT1	3-921-956-01	TERMINAL (+), BATTERY			
BT2	3-921-957-01	TERMINAL (-), BATTERY			
		< CAPACITOR >			
C1	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C2	1-162-910-11	CERAMIC CHIP	5PF	0.25PF 50V	
C3	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C4	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C5	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V	
C6	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V	
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C8	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C9	1-104-847-11	TANTAL. CHIP	22uF	20% 4V	
C10	1-164-315-11	CERAMIC CHIP	470PF	5% 50V	
C11	1-162-912-11	CERAMIC CHIP	7PF	0.5PF 50V (EXCEPT EE)	
C11	1-162-910-11	CERAMIC CHIP	5PF	0.25PF 50V (EE)	
C12	1-162-908-11	CERAMIC CHIP	3PF	0.25PF 50V	
C13	1-162-920-11	CERAMIC CHIP	27PF	5% 50V (EXCEPT US, CND)	
C13	1-162-919-11	CERAMIC CHIP	22PF	5% 50V (US, CND)	
C14	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V	
C15	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V	
C16	1-164-392-11	CERAMIC CHIP	390PF	5% 50V	
C17	1-107-826-11	CERAMIC CHIP	0.1uF	10% 16V	
C18	1-162-905-11	CERAMIC CHIP	1PF	0.25PF 50V	
C19	1-162-923-11	CERAMIC CHIP	47PF	5% 50V	
C20	1-135-221-11	TANTAL. CHIP	3.3uF	20% 4V	
C21	1-135-201-11	TANTALUM CHIP	10uF	20% 4V	
C22	1-107-823-11	CERAMIC CHIP	0.47uF	10% 16V	
C23	1-109-935-11	TANTAL. CHIP	4.7uF	20% 4V	
C24	1-115-156-11	CERAMIC CHIP	1uF	10V	
C25	1-104-509-11	CERAMIC CHIP	0.018uF	10% 16V (EXCEPT US, CND)	
C25	1-104-700-11	CERAMIC CHIP	0.027uF	10% 16V (US, CND)	
C26	1-104-509-11	CERAMIC CHIP	0.018uF	10% 16V (EXCEPT US, CND)	
C26	1-104-700-11	CERAMIC CHIP	0.027uF	10% 16V (US, CND)	
C29	1-115-156-11	CERAMIC CHIP	1uF	10V	
C30	1-115-156-11	CERAMIC CHIP	1uF	10V	
C31	1-124-434-00	ELECT	220uF	20% 4V	
C32	1-135-201-11	TANTALUM CHIP	10uF	20% 4V	
C33	1-109-935-11	TANTAL. CHIP	4.7uF	20% 4V	
C34	1-109-935-11	TANTAL. CHIP	4.7uF	20% 4V	
C35	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V	
C36	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C37	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V	
C38	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V (US)	
C39	1-162-923-11	CERAMIC CHIP	47PF	5% 50V	
C40	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V	
C41	1-163-217-11	CERAMIC CHIP	1PF	0.25PF 50V	
C42	1-163-205-00	CERAMIC CHIP	0.001uF	5% 50V	
C43	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C44	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C45	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C46	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C47	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C48	1-163-063-00	CERAMIC CHIP	0.022uF	10% 50V	
C49	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C50	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C51	1-107-826-11	CERAMIC CHIP	0.1uF	10% 16V	
C52	1-164-505-11	CERAMIC CHIP	2.2uF	16V	
C53	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	
C54	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C55	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C56	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V	
C57	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	
C58	1-162-995-11	CERAMIC CHIP	0.022uF	50V	
C59	1-162-995-11	CERAMIC CHIP	0.022uF	50V	
C60	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C61	1-162-927-11	CERAMIC CHIP	100PF	5% 50V (US)	
C62	1-162-910-11	CERAMIC CHIP	5PF	0.25PF 50V (US)	
C63	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V (US)	
C64	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V (US)	
C65	1-162-908-11	CERAMIC CHIP	3PF	0.25PF 50V (US)	
C66	1-162-927-11	CERAMIC CHIP	100PF	5% 50V (US)	
C67	1-164-357-11	CERAMIC CHIP	1000PF	5% 50V (US)	
C68	1-162-910-11	CERAMIC CHIP	5PF	0.25PF 50V (US)	
C69	1-162-905-11	CERAMIC CHIP	1PF	0.25PF 50V (US)	

Ref. No.	Part No.	Description			Remark
C70	1-162-917-11	CERAMIC CHIP	15PF	5%	50V (US)
C71	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V (US)
C72	1-162-925-11	CERAMIC CHIP	68PF	5%	50V (US)
C73	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (US)
C74	1-162-919-11	CERAMIC CHIP	22PF	5%	50V (US)
C75	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (US)
C76	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V (US)
C77	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V (US)
C78	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V (US)
C79	1-104-847-11	TANTAL. CHIP	22uF	20%	4V (US)
C80	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V (US)
C81	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V (US)
C82	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V (US)
C83	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V (US)
C91	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C92	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C93	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C101	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C104	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C105	1-115-156-11	CERAMIC CHIP	1uF		10V
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-115-156-11	CERAMIC CHIP	1uF		10V
C108	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C131	1-115-156-11	CERAMIC CHIP	1uF		10V (FX465)
C132	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V (FX465)
C133	1-164-505-11	CERAMIC CHIP	2.2uF		16V (FX465)
C201	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C202	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C203	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C204	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C205	1-115-156-11	CERAMIC CHIP	1uF		10V
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-115-156-11	CERAMIC CHIP	1uF		10V
C208	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C231	1-115-156-11	CERAMIC CHIP	1uF		10V (FX465)
C232	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V (FX465)
C233	1-164-505-11	CERAMIC CHIP	2.2uF		16V (FX465)
C301	1-115-156-11	CERAMIC CHIP	1uF		10V
C302	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C303	1-124-430-00	ELECT	22uF	20%	4V
C304	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C305	1-115-156-11	CERAMIC CHIP	1uF		10V
C306	1-124-433-00	ELECT	100uF	20%	4V
C307	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C308	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C309	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C310	1-135-221-11	TANTAL. CHIP	3.3uF	20%	4V
C311	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C312	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C313	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C314	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C316	1-109-935-11	TANTAL. CHIP	4.7uF	20%	4V
C317	1-124-430-00	ELECT	22uF	20%	4V
C318	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C319	1-113-619-11	CERAMIC CHIP	0.47uF		10V
C320	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C321	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C322	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C323	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C331	1-135-201-11	TANTALUM CHIP	10uF	20%	4V (FX465)
C332	1-164-360-11	CERAMIC CHIP	0.1uF		16V (FX465)
C334	1-135-201-11	TANTALUM CHIP	10uF	20%	4V (FX465)
C335	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (FX465)
C401	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C402	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C403	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C404	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C405	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C406	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C407	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C601	1-124-434-00	ELECT	220uF	20%	4V
C602	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C603	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C604	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C605	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C606	1-135-187-21	TANTAL. CHIP	2.2uF	20%	4V
C607	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C609	1-165-320-11	CERAMIC CHIP	0.47uF	10%	16V
C610	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V

MAIN

Ref. No.	Part No.	Description	Remark
C701	1-125-639-11	CAPACITOR 56000uF	3.5V
		< FILTER >	
CF1	1-579-823-21	FILTER, CERAMIC	
CF2	1-767-362-11	FILTER, CERAMIC	
		< CONNECTOR >	
CN301	1-695-942-21	CONNECTOR, FPC (ZIF) 6P	
CN302	1-695-943-21	CONNECTOR, FPC (ZIF) 18P	
		< TRIMMER >	
CT1	1-141-463-11	CAP, ADJ 10PF	
CT2	1-141-463-11	CAP, ADJ 10PF	
CT61	1-141-372-11	CAP, TRIMMER 5PF (US)	
		< DIODE >	
D1	8-719-062-15	DIODE KV1430-3/4-TL00	
D2	8-719-062-15	DIODE KV1430-3/4-TL00	
D3	8-719-951-05	DIODE KV1560	
D4	8-719-049-09	DIODE 1SS367-T3SONY (US)	
D5	8-719-404-49	DIODE MA111 (US)	
D41	8-719-049-09	DIODE 1SS367-T3SONY	
D61	8-713-100-11	DIODE 1T362 (US)	
D62	8-713-100-11	DIODE 1T362 (US)	
D63	8-719-049-09	DIODE 1SS367-T3SONY (US)	
D64	8-719-404-49	DIODE MA111 (US)	
D91	8-719-941-86	DIODE DAN202U	
D401	8-719-404-49	DIODE MA111	
D402	8-719-056-89	DIODE UDZ-TE-17-12B	
D701	8-719-049-09	DIODE 1SS367-T3SONY	
		< FERRITE BEAD >	
FB91	1-414-235-11	INDUCTOR, FERRITE BEAD	
FB101	1-414-385-11	INDUCTOR, FERRITE BEAD	
FB201	1-414-385-11	INDUCTOR, FERRITE BEAD	
FB301	1-414-235-11	INDUCTOR, FERRITE BEAD	
FB304	1-414-385-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC1	8-752-072-12	IC CXA1538N	
IC61	8-759-339-49	IC TA7358F-N. SONY. EL (US)	
IC301	8-759-332-69	IC LA4585M-TLM	
IC331	8-759-275-48	IC NJM2185V-TE2 (FX465)	
IC601	8-759-447-73	IC LB1979V-TLM	
		< JACK >	
J301	1-565-287-11	JACK (Ω)	
J302	1-750-061-11	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 3V)
		< JUMPER RESISTOR >	
JC1	1-216-864-11	METAL CHIP 0 5% 1/16W	(EXCEPT US)
JC2	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC3	1-216-864-11	METAL CHIP 0 5% 1/16W	(EXCEPT US, CND)
JC4	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC5	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC6	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC7	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC8	1-216-296-00	CONDUCTOR, CHIP (3216) (US)	
JC9	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC11	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC12	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC21	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC22	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC23	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC24	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC30	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC61	1-216-864-11	METAL CHIP 0 5% 1/16W	(US)
JC62	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC69	1-216-864-11	METAL CHIP 0 5% 1/16W	(US)
JC301	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC302	1-216-864-11	METAL CHIP 0 5% 1/16W	
		< COIL >	
L1	1-412-983-11	INDUCTOR 2.2uH	
L2	1-412-967-31	INDUCTOR 0.1uH	
L5	1-415-964-11	COIL (RF)	
L6	1-415-961-11	COIL (OSC)	
L8	1-415-962-11	COIL (OSC)	
L61	1-412-964-11	INDUCTOR 47uH (US)	
L62	1-412-991-11	INDUCTOR 10uH (US)	
L63	1-412-983-11	INDUCTOR 2.2uH (US)	
L66	1-415-959-21	COIL (RF) (US)	
L67	1-415-958-21	COIL (OSC) (US)	
L401	1-412-991-11	INDUCTOR 10uH	
		< FERRITE-ROD ANTENNA >	
L7	1-501-873-11	ANTENNA, FERRITE-ROD (AM)	
		< TRANSISTOR >	
Q1	8-729-602-21	TRANSISTOR 2SC4154-F (US, CND)	
Q2	8-729-807-86	TRANSISTOR 2SB1295-UL5 (US)	
Q3	8-729-117-73	TRANSISTOR 2SC4178-F14	
Q4	8-729-014-04	TRANSISTOR RN1307-TE85L (EXCEPT CND)	
Q6	8-729-421-26	TRANSISTOR UN5216	
Q7	8-729-117-83	TRANSISTOR 2SK160A-K25	
Q41	8-729-117-73	TRANSISTOR 2SC4178-F14	
Q42	8-729-230-60	TRANSISTOR 2SA1586-YG	
Q43	8-729-117-73	TRANSISTOR 2SC4178-F14	
Q44	8-729-230-60	TRANSISTOR 2SA1586-YG	
Q45	8-729-014-12	TRANSISTOR RN1311-TE85L	
Q46	8-729-117-73	TRANSISTOR 2SC4178-F14	
Q47	8-729-220-93	TRANSISTOR 2SK209-G	

Ref. No.	Part No.	Description		Remark
Q48	8-729-014-12	TRANSISTOR	RN1311-TE85L	
Q50	8-729-230-60	TRANSISTOR	2SA1586-YG	
Q61	8-729-925-52	TRANSISTOR	IMD6 (US)	
Q62	8-729-602-21	TRANSISTOR	2SC4154-F (US)	
Q63	8-729-923-31	TRANSISTOR	2SC4083-P (US)	
Q64	8-729-117-73	TRANSISTOR	2SC4178-F14 (US)	
Q91	8-729-230-60	TRANSISTOR	2SA1586-YG	
Q92	8-729-402-13	TRANSISTOR	XN1501	
Q101	8-729-421-26	TRANSISTOR	UN5216	
Q201	8-729-421-26	TRANSISTOR	UN5216	
Q301	8-729-014-12	TRANSISTOR	RN1311-TE85L	
Q302	8-729-014-12	TRANSISTOR	RN1311-TE85L	
Q303	8-729-421-26	TRANSISTOR	UN5216	
Q304	8-729-014-12	TRANSISTOR	RN1311-TE85L	
Q305	8-729-014-26	TRANSISTOR	RN2307-TE85L	
Q306	8-729-014-12	TRANSISTOR	RN1311-TE85L	
Q307	8-729-807-86	TRANSISTOR	2SB1295-UL5	
Q308	8-729-402-13	TRANSISTOR	XN1501	
Q309	8-729-014-12	TRANSISTOR	RN1311-TE85L	
Q310	8-729-014-12	TRANSISTOR	RN1311-TE85L	
Q311	8-729-230-60	TRANSISTOR	2SA1586-YG	
Q331	8-729-014-12	TRANSISTOR	RN1311-TE85L (FX465)	
Q401	8-729-602-21	TRANSISTOR	2SC4154-F	
		< RESISTOR >		
R1	1-216-821-11	METAL CHIP	1K 5% 1/16W (US, CND)	
R2	1-216-821-11	METAL CHIP	1K 5% 1/16W (US, CND)	
R3	1-216-853-11	METAL CHIP	470K 5% 1/16W	
R4	1-216-853-11	METAL CHIP	470K 5% 1/16W	
R5	1-216-829-11	METAL CHIP	4.7K 5% 1/16W (US)	
R6	1-216-853-11	METAL CHIP	470K 5% 1/16W	
R7	1-216-853-11	METAL CHIP	470K 5% 1/16W	
R8	1-216-853-11	METAL CHIP	470K 5% 1/16W	
R9	1-216-853-11	METAL CHIP	470K 5% 1/16W	
R10	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R11	1-216-817-11	METAL CHIP	470 5% 1/16W	
R12	1-216-833-11	METAL CHIP	10K 5% 1/16W	
R13	1-216-797-11	METAL CHIP	10 5% 1/16W	
R14	1-216-847-11	METAL CHIP	150K 5% 1/16W	
R15	1-216-826-11	METAL CHIP	2.7K 5% 1/16W	
R16	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	
R17	1-216-839-11	METAL CHIP	33K 5% 1/16W (EXCEPT CND)	
R18	1-216-833-11	METAL CHIP	10K 5% 1/16W	
R19	1-216-827-11	METAL CHIP	3.3K 5% 1/16W	
R20	1-216-827-11	METAL CHIP	3.3K 5% 1/16W	
R25	1-216-825-11	METAL CHIP	2.2K 5% 1/16W (FX463:US)	
R25	1-216-831-11	METAL CHIP	6.8K 5% 1/16W (FX463:EXCEPT US)	
R25	1-216-841-11	METAL CHIP	47K 5% 1/16W (FX465)	
R26	1-216-825-11	METAL CHIP	2.2K 5% 1/16W (FX463:US)	
R26	1-216-831-11	METAL CHIP	6.8K 5% 1/16W (FX463:EXCEPT US)	
R26	1-216-841-11	METAL CHIP	47K 5% 1/16W (FX465)	
R27	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	
R28	1-216-815-11	METAL CHIP	330 5% 1/16W	
R30	1-216-797-11	METAL CHIP	10 5% 1/16W	
R31	1-216-809-11	METAL CHIP	100 5% 1/16W	
R32	1-216-817-11	METAL CHIP	470 5% 1/16W	
R33	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R34	1-216-837-11	METAL CHIP	22K 5% 1/16W	
R35	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	
R41	1-216-849-11	METAL CHIP	220K 5% 1/16W	
R42	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	
R43	1-216-833-11	METAL CHIP	10K 5% 1/16W	
R44	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R45	1-216-817-11	METAL CHIP	470 5% 1/16W	
R46	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	
R47	1-216-815-11	METAL CHIP	330 5% 1/16W	
R48	1-216-805-11	METAL CHIP	47 5% 1/16W	
R49	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R50	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	
R51	1-216-805-11	METAL CHIP	47 5% 1/16W	
R52	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R53	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R54	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	
R55	1-216-817-11	METAL CHIP	470 5% 1/16W	
R56	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	
R57	1-216-150-00	METAL GLAZE	10 5% 1/8W	
R61	1-216-821-11	METAL CHIP	1K 5% 1/16W (US)	
R62	1-216-845-11	METAL CHIP	100K 5% 1/16W (US)	
R63	1-216-845-11	METAL CHIP	100K 5% 1/16W (US)	
R64	1-216-815-11	METAL CHIP	330 5% 1/16W (US)	
R65	1-216-833-11	METAL CHIP	10K 5% 1/16W (US)	
R66	1-216-805-11	METAL CHIP	47 5% 1/16W (US)	
R67	1-216-073-00	METAL CHIP	10K 5% 1/10W (US)	
R68	1-216-817-11	METAL CHIP	470 5% 1/16W (US)	
R69	1-216-829-11	METAL CHIP	4.7K 5% 1/16W (US)	
R91	1-216-837-11	METAL CHIP	22K 5% 1/16W	
R92	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R93	1-216-837-11	METAL CHIP	22K 5% 1/16W	
R94	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	
R95	1-216-809-11	METAL CHIP	100 5% 1/16W	
R96	1-216-823-11	METAL CHIP	1.5K 5% 1/16W	
R101	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R102	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R103	1-216-855-11	METAL CHIP	680K 5% 1/16W	
R104	1-216-835-11	METAL CHIP	15K 5% 1/16W	
R105	1-216-835-11	METAL CHIP	15K 5% 1/16W	
R106	1-216-817-11	METAL CHIP	470 5% 1/16W (FX463:US)	

MAIN

Ref. No.	Part No.	Description			Remark
R106	1-216-819-11	METAL CHIP	680	5%	1/16W (EXCEPT FX463:US)
R107	1-216-789-11	METAL CHIP	2.2	5%	1/16W (FX463:US)
R107	1-216-795-11	METAL GLAZE	6.8	5%	1/16W (EXCEPT FX463:US)
R108	1-216-841-11	METAL CHIP	47K	5%	1/16W (EXCEPT US)
R108	1-216-846-11	METAL CHIP	120K	5%	1/16W (FX465:US)
R108	1-216-851-11	METAL CHIP	330K	5%	1/16W (FX463:US)
R109	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R201	1-216-841-11	METAL CHIP	47K	5%	1/16W
R202	1-216-841-11	METAL CHIP	47K	5%	1/16W
R203	1-216-855-11	METAL CHIP	680K	5%	1/16W
R204	1-216-835-11	METAL CHIP	15K	5%	1/16W
R205	1-216-835-11	METAL CHIP	15K	5%	1/16W
R206	1-216-817-11	METAL CHIP	470	5%	1/16W (FX463:US)
R206	1-216-819-11	METAL CHIP	680	5%	1/16W (EXCEPT FX463:US)
R207	1-216-789-11	METAL CHIP	2.2	5%	1/16W (FX463:US)
R207	1-216-795-11	METAL GLAZE	6.8	5%	1/16W (EXCEPT FX463:US)
R208	1-216-841-11	METAL CHIP	47K	5%	1/16W (EXCEPT US)
R208	1-216-846-11	METAL CHIP	120K	5%	1/16W (FX465:US)
R208	1-216-851-11	METAL CHIP	330K	5%	1/16W (FX463:US)
R209	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R301	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R302	1-216-843-11	METAL CHIP	68K	5%	1/16W
R303	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R304	1-216-841-11	METAL CHIP	47K	5%	1/16W
R305	1-216-851-11	METAL CHIP	330K	5%	1/16W
R306	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R308	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R309	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R310	1-216-833-11	METAL CHIP	10K	5%	1/16W
R311	1-216-847-11	METAL CHIP	150K	5%	1/16W
R312	1-216-819-11	METAL CHIP	680	5%	1/16W
R331	1-216-841-11	METAL CHIP	47K	5%	1/16W (FX465)
R332	1-216-797-11	METAL CHIP	10	5%	1/16W (FX465)
R333	1-218-729-11	METAL CHIP	36K	0.50%	1/16W (FX465)
R401	1-216-845-11	METAL CHIP	100K	5%	1/16W
R403	1-216-821-11	METAL CHIP	1K	5%	1/16W
R404	1-216-845-11	METAL CHIP	100K	5%	1/16W
R405	1-216-813-11	METAL CHIP	220	5%	1/16W
R601	1-216-821-11	METAL CHIP	1K	5%	1/16W
R602	1-216-857-11	METAL CHIP	1M	5%	1/16W
R603	1-216-857-11	METAL CHIP	1M	5%	1/16W
R604	1-216-857-11	METAL CHIP	1M	5%	1/16W
R605	1-216-839-11	METAL CHIP	33K	5%	1/16W
R606	1-216-845-11	METAL CHIP	100K	5%	1/16W
R607	1-216-821-11	METAL CHIP	1K	5%	1/16W
R608	1-216-833-11	METAL CHIP	10K	5%	1/16W
R609	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
		< VARIABLE RESISTOR >			
RV1	1-223-258-21	RES, ADJ, CERMET 4.7K (VCO)			
RV301	1-223-860-11	RES, VAR, CARBON 10K/10K (VOL)			
RV601	1-223-258-21	RES, ADJ, CERMET 4.7K (TAPE SPEED)			
		< SWITCH >			
S301	1-692-901-11	SWITCH, SLIDE (NORM CrO2/METAL·DX LOCAL) (US, CND)			
S301	1-692-901-11	SWITCH, SLIDE (NORM CrO2/METAL·FM ST MONO) (EXCRPT US, CND)			
S302	1-572-922-11	SWITCH, SLIDE (AVLS)			
S303	1-762-302-11	SWITCH, PUSH (1 KEY) (TAPE POWER)			
S304	1-572-288-11	SWITCH, PUSH (F/R DETECT)			
		< TRANSFORMER >			
T1	1-415-960-11	TRANSFORMER, IF			
T401	1-449-021-21	TRANSFORMER, DC/DC CONVERTER			
		< THERMISTOR >			
TH601	1-810-794-11	THERMISTOR, POSITIVE			
		< VIBRATOR >			
X1	1-767-312-11	FILTER, CERAMIC(DISCRIMINATOR) (27MHz)			

****

Ref. No.	Part No.	Description	Remark

MISCELLANEOUS
****

9	1-663-291-11	FLEXIBLE (TUNER) BOARD	
HP901	1-500-404-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-698-839-11	MOTOR (CAPSTAN/REEL)	

****

ACCESSORIES & PACKING MATERIALS
****

	1-505-521-11	HEADPHONE (MDR-023) (FX463: US)	
	3-007-111-01	CLIP, BELT	
	3-858-916-11	MANUAL, INSTRUCTION (ENGLISH) (US, CND)	
	3-858-916-21	MANUAL, INSTRUCTION (FRENCH) (CND)	
	3-858-916-31	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN) (AEP, IT, EE)	
	3-858-916-41	MANUAL, INSTRUCTION (SPANISH, DUTCH, SWEDISH, PORTUGUESE) ((AEP)	
	3-858-916-51	MANUAL, INSTRUCTION (POLISH, CZECK, TURKISH, GREEK) (AEP)	
	3-858-916-61	MANUAL, INSTRUCTION (RUSSIAN, HUNGARIAN, BURUGARIAN) (EE)	
	3-858-916-71	MANUAL, INSTRUCTION (ENGLISH, SPANISH, CHINESE, KOREAN) (E)	
	3-858-916-81	MANUAL, INSTRUCTION (ENGLISH, SPANISH, CHINESE, KOREAN) (E)	
	8-953-156-91	HEADPHONE MDR-025 SET (FX465: US)	
	8-953-187-90	HEADPHONE MDR-ED136//K SET (EXCEPT US)	

9-923-190-11

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Personal A & V Products Company

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WM-FX463/FX465

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model

CORRECTION-1

Correct your service manual as shown below.

☛ **: indicates corrected portion.**

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
24	109	X-3371-589-1	CHASSIS (COPM) ASSY		109	X-3372-958-1	CHASSIS COMP ASSY (GL-C)	
	124	3-921-022-01	LEVER (B), DETECTION		124	3-929-419-01	LEVER (BR), DETECTION	

(RPC-97010)

9-923-190-91

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Personal A&V Products Company

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WM-FX463/FX465

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model

Ver 1.0 1998. 07

SUPPLEMENT-1

File this supplement with the service manual.

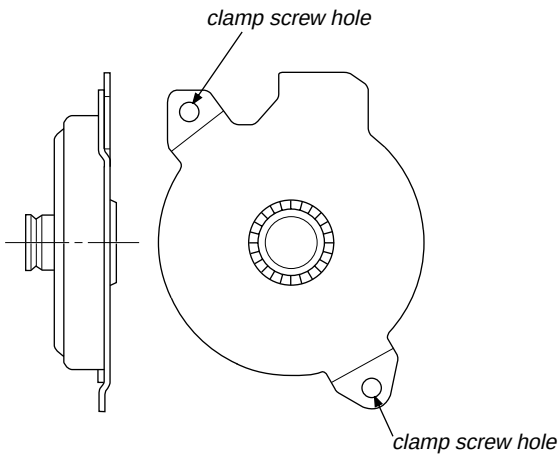
Subject: Change of motor (M901)

(ENG-98005)

Mounting shape to the mechanism deck and to the exterior cabinet is not compatible. Therefore, if the service of the set concerned requires the motor to be replaced, make sure the shape of motor following the identification method shown below, then replace it with the same type motor.

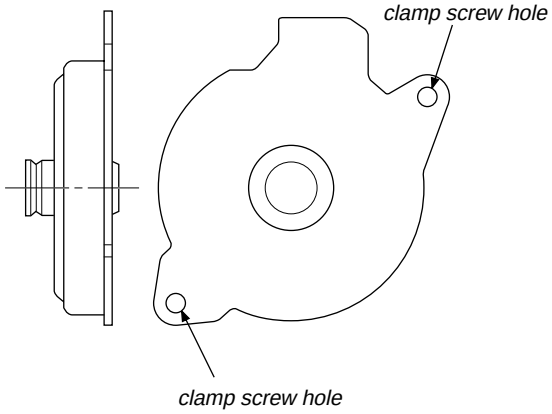
- **NEW / FORMER DISCRIMINATION**
  The direction of clamp screw holes is different. (Service manual see page 24, 31)

FORMER



Ref. No.	Part No.	Description	Remark
M901	1-698-839-11	MOTOR (CAPSTAN/REEL)	

NEW



Ref. No.	Part No.	Description	Remark
M901	1-763-073-11	MOTOR (CAPSTAN/REEL)	

9-923-190-81

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Personal A&V Products Company

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WM-FX463/FX465

SONY

US Model
Canadian Model
AEP Model
E Model

SERVICE MANUAL

1999. 12

SUPPLEMENT-2

File this supplement with the service manual.

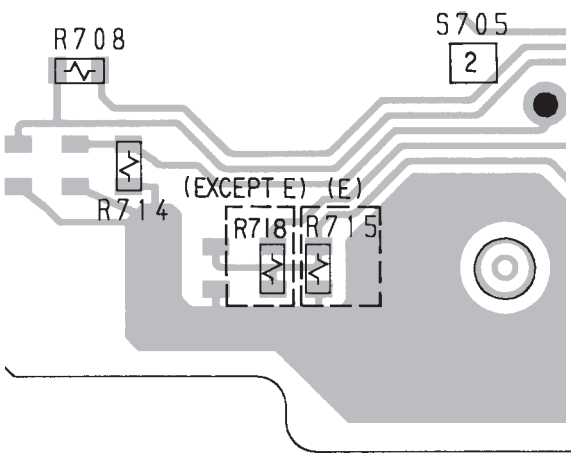
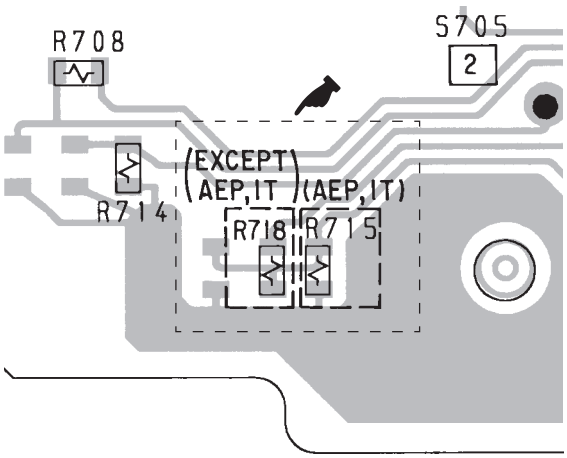
Subject:
1. Correction
2. Addition of Parts

- 5E, 6E and 8E Models have been added.
  5E Model is the same as Canadian model which is not described in this supplement-2.
  Also 6E and 8E Models are the same as US model which is not described in this supplement-2.
  Refer to WM-FX463/FX465 original service manual (9-923-190-□□) for other information

1. Correction

• PRINTED WIRING BOARD

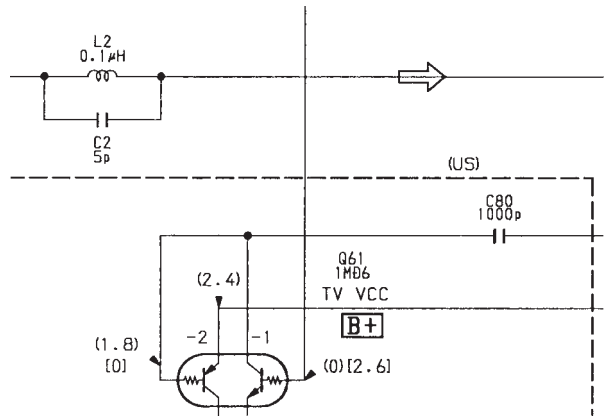
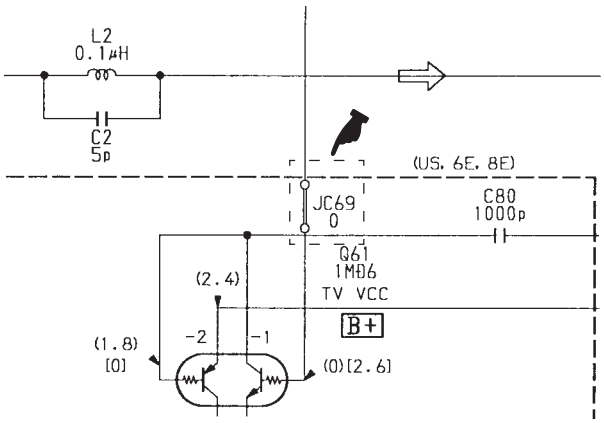
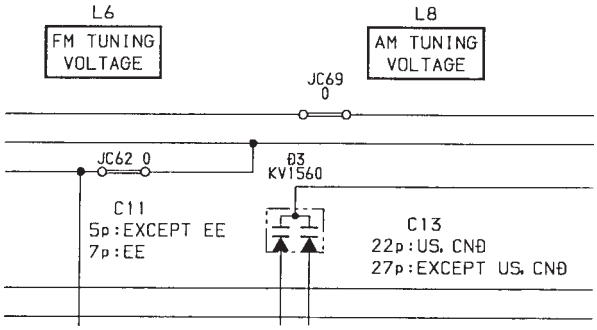
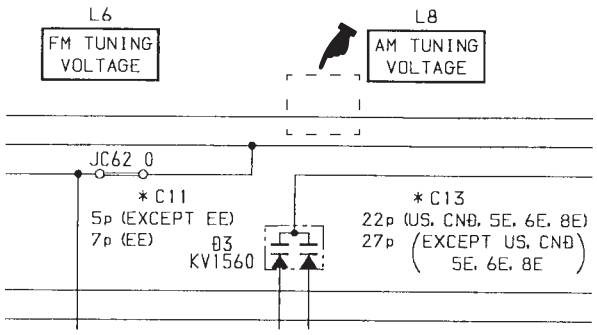
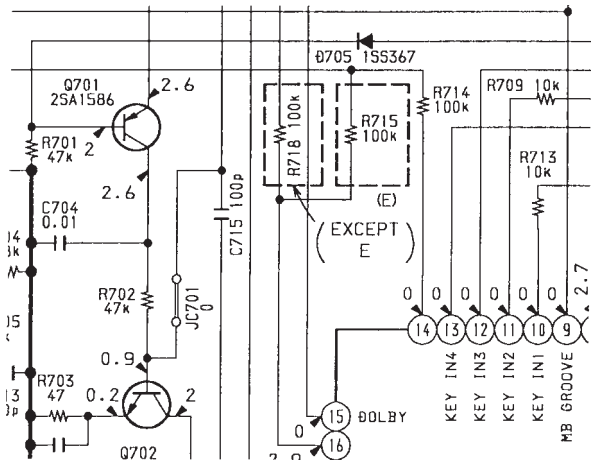
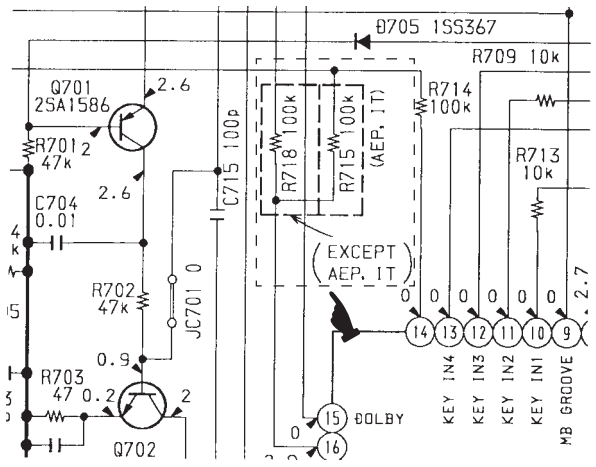
☛ : Indicates corrected portion.

Page	INCORRECT	CORRECT
17	Location J-K, 1-2 	

• Abbreviation
IT: Italian model

• SCHEMATIC DIAGRAM

☛ : Indicates corrected portion.

Page	INCORRECT	CORRECT
13	Location C-D, 2-4 	
14	Location A-B, 8-11 	 L6 FM TUNING VOLTAGE L8 AM TUNING VOLTAGE JC62 0 *C11 5p (EXCEPT EE) 7p (EE) D3 KV1560 *C13 22p (US, CND, 5E, 6E, 8E) 27p (EXCEPT US, CND 5E, 6E, 8E)
15	Location C-E, 22-25 	

• Abbreviation
CND: Canadian model IT: Italian model

• EXPLODED VIEWS

Page	INCORRECT				CORRECT			
	(1) CHASSTTE HOLER (CF) SECTION				**(1) CASSETTE HOLDER (CF) SECTION**			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
22	2	3-007-112-01	LID (CF), CASSETTE (FX465)		2	3-007-112-01	LID (CF), CASSETTE (FX465: CND, AEP, E, IT, 5E, 9E, EE)	
	2	3-007-112-11	LID (CF), CASSETTE (FX463)		2	3-007-112-11	LID (CF), CASSETTE (FX463: CND, AEP, E, IT, 5E, 9E, EE)	
					2	3-007-112-21	LID (CF), CASSETTE (FX465: US, 8E)	
					2	3-007-112-31	LID (CF), CASSETTE (FX463: US, 6E, 8E)	

• Abbreviation
CND: Canadian model IT: Italian model EE: East European model 9E: No Indication of country of origin

• ELECTRICAL PARTS LIST

Page	INCORRECT						CORRECT					
	Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
	R715	1-216-845-11	METAL CHIP	100K	5%	1/16W (E)	R715	1-216-845-11	METAL CHIP	100K	5%	1/16W (AEP, IT)
	R718	1-216-845-11	METAL CHIP	100K	5%	1/16W (EXCEPT E)	R718	1-216-845-11	METAL CHIP	100K	5%	1/16W (EXCEPT AEP, IT)

• Abbreviation
IT: Italian model

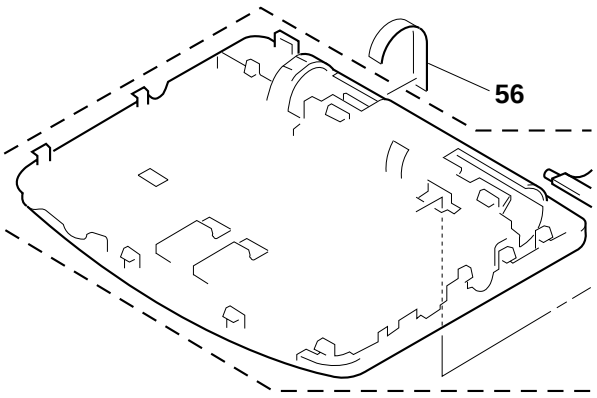
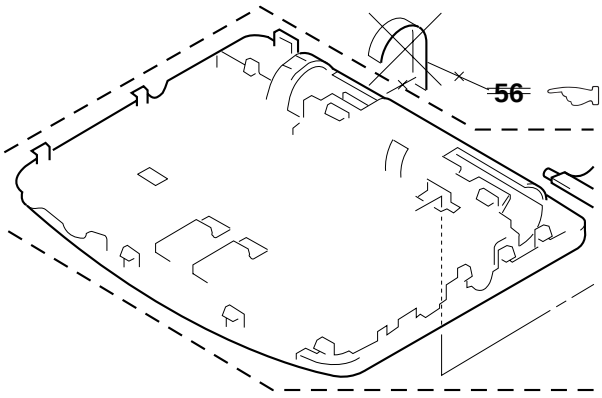
2. Addition of Parts

• EXPLODED VIEWS

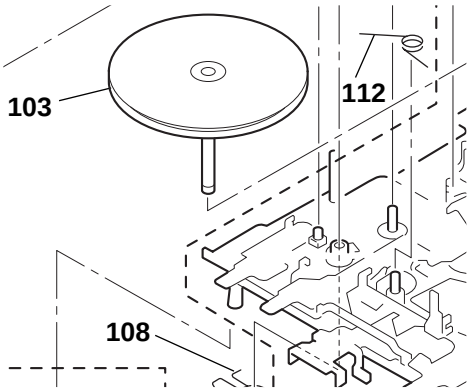
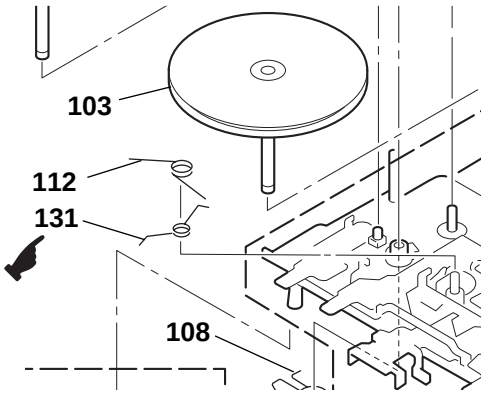
☛ : Indicates added portion.

☞ : Indicates cancelled portion.

Page	Before Change				After Change			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
22	8	3-007-118-01	HOLDER (CF), CASSETTE		8	3-007-118-01	HOLDER, CASSETTE	

Page	Before Change				After Change			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
23	* 56	3-011-182-01	RIBBON	☞				
	62	3-008-978-01	CABINET (FRONT) (CF) (US, CND)		62	3-008-978-01	CABINET (FRONT) (CF) (FX463: US, CND, 5E, 6E, 8E/FX465: US, CND, 5E, 8E)	
	62	3-008-978-11	CABINET (FRONT) (CF) (EXCEPT US, CND)		62	3-008-978-11	CABINET (FRONT) (CF) (AEP, E, IT, EE, 9E)	
	64	A-3016-933-A	MAIN BOARD, COMPLETE (FX463: US)		64	A-3016-933-A	MAIN BOARD, COMPLETE (FX463: US, 8E)	
	64	A-3016-936-A	MAIN BOARD, COMPLETE (FX465: US)		64	A-3016-936-A	MAIN BOARD, COMPLETE (FX465: US, 8E)	
					64	A-3016-968-A	MAIN BOARD, COMPLETE (FX463: 5E)	
					64	A-3016-969-A	MAIN BOARD, COMPLETE (FX465: 5E)	
					64	A-3021-102-A	MAIN BOARD, COMPLETE (FX463: 6E)	
								

• Abbreviation
CND: Canadian model IT: Italian model EE: East European model 9E: No Indication of country of origin

Page	Before Change				After Change			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	105	3-921-042-01	GEAR (REEL)		105	3-024-223-01	GEAR (REEL-2)	
	111	3-920-992-01	SPRING (STOP)		111	3-015-436-01	SPRING (STOP)	
	113	3-921-053-06	LEVER, D SELECTION		113	3-921-053-01	LEVER, D SELECTION	
	115	X-3369-752-1	CLUTCH ASSY		115	X-3375-837-1	CLUTCH ASSY	
	122	3-921-052-01	LEVER (A), DETECTION		122	3-921-052-11	LEVER (A), DETECTION	
					131	3-016-989-01	SPRING (SW-CP)	
24								

• ELECTRICAL PARTS LIST

☛ : Indicates added portion.

Page	Before Change						After Change					
	Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
25	C703	1-164-473-11	CERAMIC CHIP	820PF	10%	50V	C703	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
	C716	1-102-952-00	CERAMIC CHIP	16PF	0.5PF	50V	C716	1-164-237-11	CERAMIC CHIP	16PF	5%	50V
26		A-3016-933-A	MAIN BOARD, COMPLETE (FX463: US)					A-3016-933-A	MAIN BOARD, COMPLETE (FX463: US, 8E)			
		A-3016-936-A	MAIN BOARD, COMPLETE (FX465: US)					A-3016-936-A	MAIN BOARD, COMPLETE (FX465: US, 8E)			
								A-3016-968-A	MAIN BOARD, COMPLETE (FX463: 5E)			
								A-3016-969-A	MAIN BOARD, COMPLETE (FX465: 5E)			
								A-3021-102-A	MAIN BOARD, COMPLETE (FX463: 6E)			
28	D5	8-719-404-49	DIODE	MA111 (US)			D5	8-719-073-01	DIODE	MA111-(K8).S0 (US, 6E, 8E)		
	D64	8-719-404-49	DIODE	MA111 (US)			D64	8-719-073-01	DIODE	MA111-(K8).S0 (US, 6E, 8E)		
	D401	8-719-404-49	DIODE	MA111			D401	8-719-073-01	DIODE	MA111-(K8).S0 ☛		
	FB91	1-414-235-11	INDUCTOR, FERRITE BEAD				FB91	1-414-235-22	INDUCTOR, FERRITE BEAD			
	FB101	1-414-385-11	INDUCTOR, FERRITE BEAD				FB101	1-414-760-21	INDUCTOR, FERRITE BEAD			
	FB201	1-414-385-11	INDUCTOR, FERRITE BEAD				FB201	1-414-760-21	INDUCTOR, FERRITE BEAD			
	FB301	1-414-235-11	INDUCTOR, FERRITE BEAD				FB301	1-414-235-22	INDUCTOR, FERRITE BEAD			
	FB304	1-414-385-11	INDUCTOR, FERRITE BEAD				FB304	1-414-760-21	INDUCTOR, FERRITE BEAD			
	L66	1-415-959-21	COIL (RF) (US)				L66	1-415-959-11	COIL (RF) (US, 6E, 8E)			
	L67	1-415-958-21	COIL (OSC) (US)				L67	1-415-958-11	COIL (OSC) (US, 6E, 8E)			
	Q4	8-729-014-04	TRANSISTOR	RN1307-TE85L (EXCEPT CND)			Q4	8-729-028-99	TRANSISTOR	DTC114YUA-T106 (EXCEPT CND, 5E)		
29	Q305	8-729-014-26	TRANSISTOR	RN2307-TE85L			Q305	8-729-028-76	TRANSISTOR	DTA114YUA-T106 ☛		
30	S304	1-572-288-11	SWITCH, PUSH (F/R DETECT)				S304	1-572-288-21	SWITCH, PUSH (F/R DETECT)			

• Abbreviation
CND: Canadian model

• ACCESSORIES & PACKING MATERIALS

☛ : Indicates added portion.

Page	Before Change				After Change			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
			ACCESSORIES & PACKING MATERIALS **********				ACCESSORIES & PACKING MATERIALS **********	
31		1-505-521-11	HEADPHONE (MDR-023) (FX463: US)			1-505-521-11	HEADPHONE (MDR-023) (FX463: US, 8E) ☛	
		———	———	———		3-858-916-93	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE) (5E)	
		———	———	———		3-861-277-11	MANUAL, INSTRUCTION (FINNISH) (FX463: AEP)	
		———	———	———		3-861-277-21	MANUAL, INSTRUCTION (SPANISH) (FX463: 6E, 8E/FX465: 8E)	
		8-953-156-91	HEADPHONE MDR-025 SET (FX465: US)			8-953-156-91	HEADPHONE MDR-025 (FX465: US, 8E) ☛	
		8-953-187-90	HEADPHONE MDR-ED136//K SET (EXCEPT US)			8-953-187-90	HEADPHONE MDR-ED136 (EXCEPT US, 8E) ☛	

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